The Mining Journal

Established 1835 — Railway & Commercial Gazette

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Cable Belt Conveyor at a Yorkshire Colliery. Present length of conveyor 1,700 yards, ultimate length of conveyor 3,400 yards
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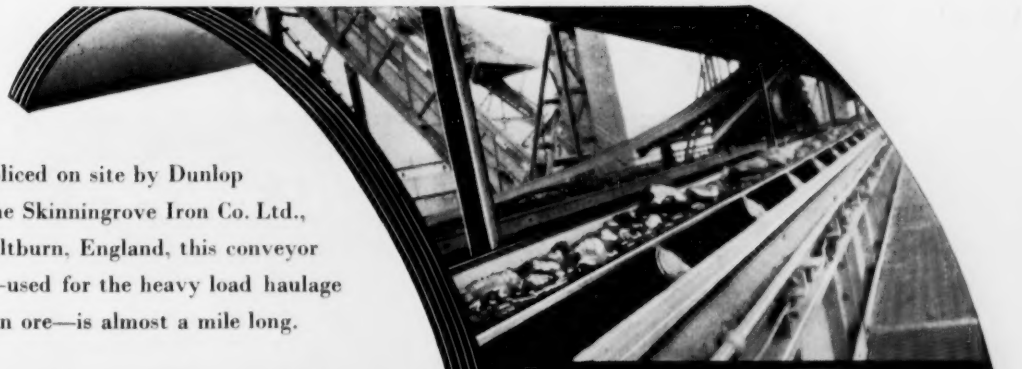

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WHATEVER

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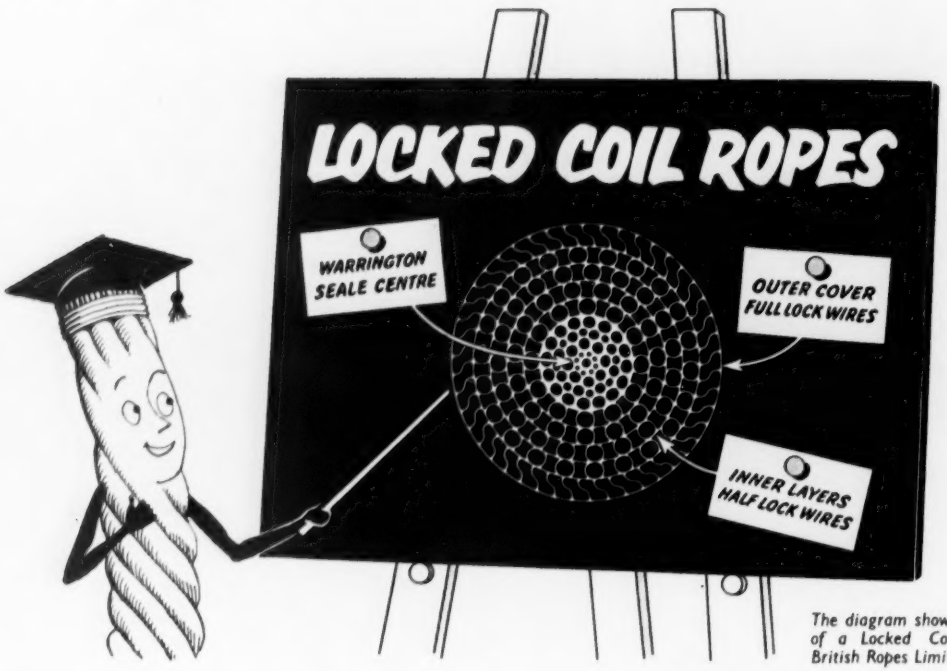

The diagram shows the end section of a Locked Coil rope made by British Ropes Limited.

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A typical application of Locked Coil rope.

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NOTES AND COMMENTS

Commodity Stabilization Schemes

The tide of affairs is still running strongly in favour of commodity stabilization in spite of superficial indications to the contrary. It is true that only three major schemes exist—wheat, sugar and tin—and that some members of the first have temporarily defected and that the last has yet to be put into practice. But there is no doubt of the strength of feeling in favour of price stabilization.

On the one hand there are what might be called private stabilization schemes; the marketing policies of aluminium and nickel producers, of American (and now R.S.T.) copper producers; and in the background the American stockpiles of farm produce as well as of industrial raw materials which are more and more coming to be used as buffer stocks.

On the other hand there are the more grandiose schemes for stabilizing commodities *en masse*, one of which is now being discussed in New York by the Permanent Advisory Commission on International Commodity Trade. This is an Argentine scheme which would call on the P.A.C.I.C.T. to decide on which commodities were in surplus, freeze prices at present levels for their commodities thus found in surplus, and formulate a uniform practice for the holding of reserves and carry-overs. In its way it is as high-flown and impracticable as another much-loved scheme of primary producing countries for relating primary product prices to the prices of manufacturers.

Such discussions are carried on in so rarified an atmosphere that they are (rightly) only infrequently reported in the Press, but as this year will see a spate of discussion it is as well to try to assess their political, if not their economic, importance. There is a long-standing body—Interim Co-ordinating Committee for International Commodity Arrangements (I.C.C.I.C.A.) which is a United Nations Committee having ties with G.A.T.T. and with the Food and Agricultural Organization. However, dissatisfaction with its progress and with the Korean boom in commodity prices caused a resolution also proposed by Argentina to be passed in the United Nations General Assembly calling for "multilateral" as well as "bilateral" agreements covering "individual primary commodities" and "groups of primary commodities and manufactured goods." As a result, a committee of experts was set up which reported that a new stabilization committee was needed which would study ways of promoting general stabilization as well as mere commodity market stabilization. That new committee is P.A.C.I.C.T. which has now held two sessions in New York and is due to report to the Economic and Social Council of the United Nations (E.C.O.S.O.C.) in the summer. If the story appears complicated it should be said that it has been told in the barest outline and that what makes the matter really complex is that F.A.O. has also been issuing statements recently on commodity stabilization, that G.A.T.T. has a working party on the subject which is due to report in the summer; and that O.E.E.C. has also sent a report of a special committee on commodity stabilization to P.A.C.I.C.T. for study.

The one comforting conclusion to be drawn from all this (it almost outweighs the cost of supporting all these deliberations) is that there are sufficient cooks at work to ensure that the broth will never be ready for serving. At the same time some delicate political problems arise. The attitude of the United Kingdom would appear to be to oppose this proliferation of committees if possible and secondly to sit on them, if they are set up, to try to prevent too much damage; this attitude is the prevailing one among European manufacturing countries. The United States, however, maintains a more stolid opposition (she has an observer but not a delegate at P.A.C.I.T.C.). It has also been open British policy to detach all these commodity discussions from the United Nations (when Britain and the western manufacturing countries are almost certain to be continually outvoted) and to ally them with G.A.T.T. where discussions are private and generally not rabidly political, and where Britain has more influence.

The U.S. is opposed to this, too, since it would make the task of getting Congressional approval of G.A.T.T.—or the new O.T.C.—virtually impossible. It is not difficult therefore to see that with the western nations divided, the primary producers protesting against victimization, economic colonialism and the low prices of commodities, and the eastern bloc cheerfully making trouble by supporting the grumbles of the primary producers while refusing to enter commodity schemes themselves, the field of commodity stabilization is a political battleground. It is possible to find a good laugh in all this; it is also possible to find relief in the fact that while no progress is being made no harm is being done; but it is also possible to regret that while discussions continue at their present level a sensible

discussion of commodity stabilization—in those cases where it appears necessary—is precluded.

Stockpiling and the Texas Smelter Separate Issues

When President Eisenhower's administration made clear last Spring its attitude of benevolent neutrality towards the International Tin Agreement we all hoped, and indeed most of us believed, that the once popular Washington pastime of baiting the tin industry had become a thing of the past. Recent events have shown us to be unduly optimistic, and on the opposite page we discuss at some length the regrettable contents of a recent report to the U.S. Senate on the continued operation of the Texas smelter.

The fact of the matter is that the issues of whether or not to continue stockpiling and whether or not to continue Government operation of the Texas smelter are quite separate and distinct. It would be perfectly feasible to continue operating the smelter while selling the output to American industry. Equally it would be feasible to continue stockpiling without operating the smelter.

For Washington, stockpiling can now only be an issue of international politics. It is to be hoped that ratification of the I.T.A will in any case soon render further stockpiling unnecessary, but the goings-on of Mr. Symington and his colleagues are the best possible guarantee that Indonesia will continue to delay ratification.

As for the Texas smelter, the agitation for its continuation appears, from where we sit, to be mainly that of a local sectional interest which, if Washington allows, is prepared to continue indefinitely the operation of an uneconomic unit.

Threat to Gold Mining in Mysore

Mysore's gold mining industry, one of the major revenue-yielding industries in the State, may face the grim prospect of early closure, according to the management of the Kolar gold mining companies, if the royalty payable by them into the State Government is doubled as suggested by the Gold Mining Inquiry Committee. Characterizing the proposal as 'arbitary and impracticable," the management point out that a 100 per cent raise in royalty " may result in the early closure of one of the mines and, probably, before long, the closure of the whole industry."

Meanwhile, a resolution approving the recommendations of the committee, which inquired into the working of the 1949 agreement between the Government of Mysore and the Kolar Goldfield Gold Mining Companies, and urging the Government to take such measures as it might consider necessary in the interests of the State, was unanimously adopted by the Mysore Legislative Assembly.

The committee recommended doubling the present five per cent royalty, and to revise the 1949 agreement in a suitable manner with the consent of the mining companies, or to replace it by legislation with Government concurrence. It also expressed the opinion that the continuance of the agreement in its present form ould not serve any useful purpose in view of the fact that important clauses in the agreement " have been honoured more in the breach than in the observance " by the management.

Mr. Sidney Thomas (nominated Anglo-Indian) said there would be very " dangerous repercussions " if the recommendations of the committee were accepted. To ask the companies to pay double royalty was to ignore the realities of the situation, said Mr. Thomas. Gold, which was being sold at Rs.306 in 1940, had gone done in price to Rs.229, and working costs had gone up.

The committee was set up under the chairmanship of Mr. H. Siddaveerappa, Mysore's Minister for Industries.

Brazil

(From Our Own Correspondent)

Teresopolis, April 22.

The 1955 programme to be carried out by the Department of Mineral Production includes the prospecting for and examination of non-ferrous metal occurrences. With the exception of the considerable known deposits of bauxite and magnesite, only modest reserves of lead, zinc, tin and copper have been proved to date and local production of the first two metals is still only sufficient for 20 and 10 per cent respectively of consumers' needs. The market demand is increasing rapidly and systematic study of the known deposits is urgently needed. The most important of these known deposits are in the Ribeira Valley, comprising parts of Sao Paulo and Parana, at Boquira and elsewhere in Bahia, in Blumenau, Sta Catarina, and adjoining municipalities, in the region of Encruzilhada, Cacapava, etc., Rio Grande do Sul, and in the neighbourhood of Januaria.

Exploitation of the copper mines of Rio Grande do Sul, with estimated reserves of 1,000,000 tons, was recently resumed and production is now about 8,600 tons annually.

Only two of Brazil's seven known deposits of garnierite are at present being exploited, namely that at Tocantins, or Niquelandia, in Goias, and at Livramento, in Minas Geraes. The former, abandoned by American Smelting and Refining Company in 1944 owing to lack of transportation facilities, are now being mined by Companhia de Niquel de Tocantins, which is preparing to produce 2,000 tons a year.

Prospecting and refining of the tin-uraniferous ores and primary deposits of the Sao Joao del Rei area, in Minas Geraes, will be speeded up this year. An electrostatic separator, acquired in Germany, is being added to the processing plant installed last year, to separate uranium, tantalum and other elements, associated with the cassiterite.

FUNDS FOR EXPLORATION

Special credits are earmarked for investigating the iron ore and manganese deposits of Minas Geraes, Espirito Santo, Bahia and other States, and for the systematic examination of occurrences of potassic rocks, phosphate marls and sandstones. Included also will be investigations of uranium, thorium, zirconium and bauxite mineral resources, and the scheelite, magnesite, tantalum, niobium, beryllium and other pegmatite minerals of North-east Brazil.

One of Brazil's most important occurrences of monazite was recently discovered at Florania, Rio Grande do Norte, where, in an area of 620 acres, the mineral, associated with zirconium, is found in large, greyish 5-cm. crystals.

Other funds are reserved for examining the newly-found coal seams in Maranham and Piaui, provisionally reported to be similar to those of U.S.A. and Europe, and those on the western border of Rio Grande do Sul. The funds will also be used for the rationalizing of mining processes and increasing the output of the Parana, Rio Grande do Sul and Santa Catarina mines. Extensive drilling and prospecting last year revealed exploitable reserves of 1,205,000,000 tons in Santa Catarina, instead of 400,000,000. This State is the only one in which coal suitable for metallurgical purposes is being mined.

Oil flowed for the first time in Brazil outside the Bahia zone in March last. Positive results were obtained at 8,800 ft. from Pioneer Well N.O. 1-Az, near Nova Olinda, on the right bank of the Madeira River, 150 km. south-east of Manaus. The three earlier wildcats proved dry in the Amazon region, one of the most difficult in the world for prospecting, owing to its immense swamps and forests and the complete lack of facilities for moving heavy materials.

Nonsense on Tin

The tin producers have been coming under fire again from Washington, just as we were beginning to hope we had heard the last of this particular nonsense. On this occasion the old familiar cries of gouging and international monopoly have been raised from no less a quarter than the Senate Committees on Armed Services and Banking and Currency in their report to the Senate regarding the continued operation of the Texas smelter. This report which has been submitted for the Committees by Senator Stuart Symington—a name not unfamiliar to the tin industry—is really a quite scandalous document. The report follows the familiar technique of calling black white and then proceding to argue from false premises. We have neither the time nor the space to deal with the report inaccuracy by inaccuracy and will confine ourselves to considering its five main conclusions which we list below together with what we trust will prove to be temperate comment.

1. While it is encouraging to have substantial amounts of tin metal in our stockpile, such supplies can be considered reasonably adequate only for an unpredictable short run.

Giving evidence about a year ago before the Senate Banking and Currency Committee Mr. Cravens, the then R.F.C. Administrator, was reported as saying that the U.S. had then stockpiled enough tin "to last six years at the present rate of consumption and possibly ten." To-day the reserves are presumably greater by about another 30,000 or 40,000 tons. If it is seriously being suggested that stockpiles of this magnitude may not be strategically adequate, we can only reply (a) that to expect an atomic war (as the next one inevitably must be) to last six months, let alone six years, is stretching probability and (b) that if six years consumption for all strategic materials is considered an irreducible minimum, the strain on the American taxpayer's pocket is going to be prodigious.

2. A tin smelter in the United Sstates has significant defence value, in case the sealanes are haza dous or far eastern sources of supply are inaccessible.

Strategically the Texas smelter has no signficance unless concentrates are available to feed it. To operate on an even remotely economic basis it requires a proportion of African or Eastern ores to enrich the low grade Bolivian concentrates. The only difference between running and not running the Texas smelter is therefore that between stockpiling tin concentrates and tin metal.

3. Tin is a strategic item in our future material arsenal.

This is true. It is also true that the U.S. are totally dependent on foreign supplies of tin, a fact which may account for the somewhat petulant attitude towards the tin industry which has long been manifest in some sections of Congress. It is politically very much easier to accuse an international industry of monopolistic extortion when you have not got a section of it at home which may itself be sailing near the wind as regards the Anti-Monopoly Laws.

The hard truth is that tin is an extreme example of a growing condition of U.S. dependence on imported metals first made painfully clear in the Paley report. It is a condition to which the economy of older countries such as Britain and Germany have long been geared, but in the States, Congress and American mining interests have both yet to become reconciled to this inevitable change.

4. The free economy of a South American neighbour, Bolivia, is substantially dependent upon sale of concentrates which can be smelted in quantity only in the Government smelter.

Let us be clear about the political importance of tin in Bolivia. In the first place the fact that tin is no longer Bolivia's sole economic prop has become increasingly clear during the past year in which the country's petroleum industry has, at last, begun to show the rapid expansion which has long been looked for. Secondly, tin or no, Bolivia is virtually assured of all the dollar aid she needs as part of the political necessity to the States of keeping the Latin American countries on their feet. Thirdly, in so far as Washington continues to spend money from political motives on buying tin it doesn't need, it is likely that the principal motivation will be the sustaining of the economy of the Malayan Archipelago rather than Bolivia.

As for the statement that Bolivian concentrates can be smelted in quantity only in the Texas smelter we can do no better than quote from a letter from Mr. Clifford Waite, chairman of Consolidated Tin Smelters, to Senator Symington which has recently been made public. In this letter Mr. Waite remarks: "Up to the year 1940, the whole of the Bolivian production, which in some years was 20 per cent higher than it is to-day, was smelted in Europe. Throughout World War II after the completion of the Texas City smelter, one half of the production of Bolivia was smelted in England and in fact continues to be smelted here to-day. The economy of Bolivia would not suffer if the Texas City smelter was closed down, and the Bolivian Mining Corporation—a Bolivian Government organization—and the Bolivian Ambassadors in London and in Washington have been advised by me that in such an event English and other European smelters are ready and willing at any time to treat the total production of Bolivia and to enter into long-term contracts. The United Kingdom can thus claim an important share in sustaining the economy of Bolivia, both during and after World War II up to the present time."

5. Maintenance and operation of the Government smelter decreases the risk of this country's being at the mercy of price gouging by those controlling foreign tin supplies. [Note: In the body of the report the following statement also appears: *The soundness of this decision (i.e. to continue the operation of the smelter after 1945) was further supported as the Korean war found this country with an expanding demand for tin. As this demand developed, the foreign tin cartel engineered a price rise of almost 200 per cent within an 8-month period.*]

As Mr. Waite also points out in his letter, there was no cartel and no gouging despite the sensational rise in price. Tin was dealt in on free markets which were patently not manipulated by the producers as there was no falling off in output. The primary cause of the price rise was the U.S. Government's decision to accelerate the completion of the stockpile—a fact which was made abundantly clear in Senator Johnson's report to the Committee on Armed Services early in 1951. It might perhaps be added that equally it was the subsequent buying strike by the R.F.C., again much overdone, which helped to bring the price down.

The mining industry exists to-day under the gathering cloud of vast stockpiles of practically every important metal. So long as these stocks are administered wisely all will no doubt be well—provided the American taxpayer can afford them—but wild talk of gouging (when, in fact, Uncle Sam has it in his power to flood not only the tin market but that for practically every other strategic commodity), is not merely nonsense but frightening nonsense as it argues such a complete misunderstanding of economic realities as to make one fear for the future direction of the stockpiling programme if ever the President should lose control of the situation to Congress.

The Coal Mining Industry

With production from Britain's collieries and opencast mines running 1,400,000 tons below the figure at this time last year it was with relief that the Coal Board heard that the threatened railway strike had been called off—30 hours before the deadline. Such a strike would inevitably have led to many mines closing within a few days, and although distributed stocks of coal to public utilities and industrial consumers are sufficient for three weeks or so, a railway stoppage, however short,would greatly aggrevate the already critical fuel situation in the U.K. This situation is not being helped by the spate of sporadic strikes going on in the coalfields. In Scotland the labour problem has for long given concern and the past month has instanced a dozen or so localized strikes on the flimsiest of pretexts. In the Midlands too, dissatisfaction over piece work rates has flared up into strike action. This stoppage is unofficial and N.U.M. leaders are endeavouring to get the men back to work .

THE WAGE STRUCTURE

The new wages structure for day wage workers outlined in the *Mining Journal*, April 1, has received a very mixed reception. Several branches of the National Union of Mineworkers are claiming that the agreed minimum scales are insufficient and that they should be replaced by the maximum rates. Colliery mechanics are particular aggrieved and claim that the proposed 29s. 7d. per shift is well below the daily average wage for the industry and as such is wholly inadequate. At several collieries, mechanics have banned all overtime in protest against the new wages structure.

In Germany, agreement has not yet been reached in the wages dispute between the West German hard coal miners and the employers. Negotiations on this issue have been protracted and at times acrimonious voting is at present going on in the coalfields to determine whether or not the miners will accept the employers' offer of an overall wage increase estimated as approximately eight per cent. West German coal imports from the U.S. are expected to reach 4,000,000 tons this year ; 2,000,000 tons more than last year. The main reason for the increase in imports is the continued expansion of the West German steel industry. The price of U.S. coal which last year was lower than that for indigenous coal has risen to 67D.M. per ton c.i.f. Hamburg compared with 65D.M. for Ruhr coal.

Owing to an acute shortage of workers in certain Belgian coalfields, arrangements have been made to import labour from Greece. Until recently Belgium recruited foreign miners from Italy, and many thousands of Italians are at present working in Belgium, but this wholesale migration of Italian workers has not found favour in some quarters. However, if Belgium's labour requirements are to be met there is no alternative to large-scale use of foreign labour.

The recent decision of the High Authority to rationalize freight charges within the six member states of the European Coal and Steel Community was put into effect on May 1. The new freight charges are designed to remove the transport anomalies arising out of extensive inter-state trading. The chief criticism of the old freight charge system was the existence of "split tariffs" which together with discriminatory freight charges were relics of pre- community trading practice. With the old split tariff system each country assumed that a journey ended at its frontier or in the case of imports, began at the frontier. Thus, if a train crossed a frontier the cargo was treated as having taken two separate journeys. Consequently such cargo lost the benefit of the reduced freight charges applying on long hauls. The train also had to pay heavy terminal station fees for an imaginary station on either side of a frontier. Thus Ruhr coal hauled to Paris crossed both the Belgian and the French frontier and so was considered as having made three separate journeys and in addition was charged toll for passing through four terminal stations. Such split tariffs and station charges formerly accounted for 25 per cent of the freight charges on coal and iron shipments between member states. Their removal will lead to increasing trade across community frontiers and the unravelling of the tangled skein of freight rates is for the E.C.S.C. a political as well as an economic operation of the first importance.

The foreign ministers of the six member nations were to meet early this month to discuss the appointment of a successor to M. Jean Monnet, retiring French President of the Pool's High Authority. The Common Assembly of the E.C.S.C. considered the report for 1954 at a meeting on May 10. Figures taken from this report show that trade in coal and steel continues to rise and with the introduction of direct international tariffs for rail transport in the pool, the present year is expected to set new records.

In America the bituminous coal industry continues to climb back on to a firmer footing; increased demand by home industries and an expanding export market have combined to dispel, at least temporarily, the fear of widespread unemployment. In an endeavour to halt the phenomenal increase in the use of natural gas in the U.S., the National Coal Association have been pressing for an amendment to the Natural Gas Act aimed at conserving gas resources. Witnesses for the N.C.A. have testified that if the present wasteful exploitation of natural gas is not halted by legislation Texas and California will ultimately have to import coal to meet their energy requirements. National Coal Association officials say that the U.S. has already passed the peril point in exhausting natural gas resources.

COAL TRANSPORTATION

The recently issued annual report of the Pittsburgh Consolidated Coal Co. has commented that the "piping of coal has been completed as a research and development project and is now in the commercialization stage." It is expected that work on an 8,000 tons per day 115 mile pipeline will be started in the near future. This is the biggest coal pipeline contemplated so far as is known but the hydraulic transportation of coal has been under consideration in other countries for some time. Pilot plants are being set up in the U.K. and on their performance will depend the future of this transport medium in Britain.

The economics of the piping of coal show it to be at least as cheap as conventional underground haulage and presumably the announcement by the Pittsburgh Consolidation Coal Co. can be interpreted as meaning that its cost compares favourably with large-scale conventional surface haulage.

Haulage is in the news elsewhere in the U.S. The third attempt of the Riverlake Belt Conveyors Inc. to obtain permission to construct a mammoth conveyor belt system is still meeting strong opposition. This proposed $300,000,000 belt system would connect E. Liverpool on the Ohio River to the industrial centre of Cleveland. The system is intended to carry 3,900 tons of ore/hr. southwards on a series of 48 in. belt conveyors. Running parallel will be a 72 in. conveyor line carrying 4,000 tons of coal per hour in the reverse direction. Principal opponents of the scheme are the railroad operators, who will be hard hit if this conveyor project matures.

International Ore Dressing Congress, 1955

The International Ore Dressing Congress opened at Goslar, Hartz district, Western Germany, on May 8, and was attended by members from 21 countries. In the following article, from our Representative at the Congress, the agenda of the Congress is fully presented. We hope to be able to publish fuller details of some of the papers in due course.

In opening the International Ore Dressing Congress, the Honorary President of the Congress, Herr Bergrat, Dr. Ing. EL., P. F. Hast, said that during the French Ore Dressing Congress in 1953, M. Seyer, the chief mining engineer of the French Ministry of Commerce, suggested the organization of meetings at intervals. (In point of fact the initial suggestion came from the OEEC Mission 54. See their report.) The first meeting was offered to Germany who handed the organization to the Association of Mining and Metallurgical Engineers in Germany. The number of guests was far higher than expected, some 450 being present of which nearly a half came from abroad and represented 21 nations.

Herr Hast proceeded to describe the purpose of the work of the Mineral Dressing Engineer and pointed out that owing to the depletion of ore reserves, more emphasis was being placed on mineral dressing. Consequently this Congress played an important part in the economy of mining at Goslar, the refining of potash would also be considered as it was an important part of the German economy.

Herr Hast then mentioned the visits which he hoped would enrich the programme and called attention to the fact that in order to make the Congress a success, arrangements had been made for all lectures given to be interpreted simultaneously and conveyed to members by head-phones in either of three languages, English, French and German. Herr Ministerialdirektor Dr. J. Rust of Bonn then talked of the importance of mineral dressing and the economics necessary to improve the yield and yet reduce costs in the treatment of low grade ores.

Mons. M. P. Seyer, Ingénier Général des Mines, of France, said he regarded the conference as the first inter-European effort as the ones at Paris and London held previously had had a nationalistic character. He thought that such Congresses contributed a great deal to international friendship, and wondered if extracts of the papers and discussions could be made in English and French and possibly augmented with a glossary of technical terms in three languages. (This was also done in OEEC Missions report 54.) He felt also that the German hosts has borne enough expense in the publication and that translation expenses should be borne by other member countries.

Mr. N. Weiss, Associate Chairman of the Mineral Benefication Division of A.I.M.M.E., then thanked the hosts on behalf of non-European visitors and said he was happy and honoured to be present and was glad to play a part in such a gathering. All had the problem of lower grade ores and rising costs and the meeting should do a lot on this subject.

THE FESTIVAL LECTURE

Herr Bergrat Dr. Ing., H. H. Von Scotti of Goslar, then gave the Festival lecture on *The Development of Metal Ore Mining in the Western Hartz, and its Dressing.* In this talk he outlined the history of Hartz mining which started in the 10th century and described the geology and mining methods mentioning fire-setting which was used for 700 years until gunpowder was employed first in 1632. He proceeded to describe the history of gravity concentration and flotation up to 1931 when the first selective flotation plant was used at Grunet. Later in 36 the Rammelsberg plant was erected and since rebuilt to the banded ore plant started at Bottrich in 1953.

It is interesting to note that the relay system used at the Congress consisted of interpretation in sound-proof boxes. A speaker delivered a lecture which was relayed simultaneously on three different wavelengths to a micro-receiver (working on short-waves) incorporated on a pair of plastic head-phones. In discussions a series of special microphones were used to connect to the relay apparatus. The system worked well and is probably first time it has been used in any mining conference.

PAPERS PRESENTED

The business part of the Congress started on Monday morning, May 9, and sessions were held in mornings only for the first two days. On the last day, however, the discussions continued into the afternoon.

On the first day the following papers were presented; *Saving Cost by Pre-concentration, illustrated by the Mechernich Operations* by Dr. E. Puffe, *Control of Grinding Process in Ball Mills* by E. J. Pryor, *Comminution Studies at Malmberget* by B. Fagerberg, *The New German Standards for Graphic Representation of Size Distribution* by S. Kiesskalt, *Experience with Xanthates of the Higher Alcohols* by G. Erberich and *Separation of Pyrites and Arsenopyrite by Flotation in Treatment of Complex Ores* by H. Kirchberg. After lunch visits to plants in the neighbourhood of Goslar took place.

On the second day six more papers were presented including *Mineral Associations of German Saline Deposits* by R. Kuhn, *Mineral Dressing Problems in the German Potassium Industry* by R. Bachmann, *Studies of the Magnetic Separation of Minerals* by R. Tille and W. Kirkpatrick, *Electrostatic Separation Practice* by A. Stieler, *Pulp Handling in Ore Dressing Plants* by G. Salzmann, *Production and Properties of Ferrosilicon for Heavy Media Separation* by F. Rodis, and *Autogenous Sizing and Sorting in Centrifugal Separators* by H. Trawinski.

Excursions again took place during the second day and included a choice of visits to lead, zinc, copper, iron ore concentrators, machinery manufacturers, a limestone quarry, the departments of Mineral Dressing and Mineralogy at the School of Mines, Clausthal.

On the third day seven papers were presented: *Use of Mineralogy in the Supervision of Dressing Operations* by E. Cohen, *Microscopic Examination Methods for Ore Dressing* by G. Rehwald, *Treatment of Sulphide Ores at Boliden* by P. H. Fahlstrom, *Mineral Dressing at Bleiberg (Austria)* by W. Enzfelder, *Dressing of Special Materials other than Natural Ores* by H. Rush Spedden, *Ore Sampling* by P. Gy and *Use of Factor Calculation in Laboratory Tests at the Touissit Concentrator* by G. Boyard.

Six further papers have been presented for discussion in writing and were published in the April number of *Zeitschrift fur Erzbergbau und Metallhuttenwesen.* These were, *Studies in the Treatment of Cassiterite* by W. Grunder, *Principles and Possibilities of the Rheaux Process in Ore Dressing* by F. Kirnbauer, *Factors in Assessment of the Properties of Heavy Media* by F. W. Mayer, *The Double-movement Jaw Crusher* by H. Ruhl, *The Stripa Process for Sink and Float Separation* by J. Svensson and *The Classification Eddect in the Rosin—Rammler—Bennett Plot* by H. Trainski.

The actual Congress closed on Wednesday, May 11, but a

series of three day excursions were arranged for those who wished to visit of various treatment plants, University departments, testing laboratories and works in Western Germany, concluding with a trip on the Rhine from St. Goar to Rudesheim and a social evening at the old Eberbach Monastery near Hattenheim in the Wiesbaden district.

Members attended the Congress from Belgium, Cyprus, the United Kingdom, Finland, France, Greece, Holland, India, Israel, Italy, Yugoslavia, Luxemburg, Norway, Austria, Portugal, Northern Rhodesia, Sweden, Spain, the United States, and Turkey. A large number of German delegates were also present. In all, 239 German and 210 foreign members were present, together with 71 German and 66 foreign ladies.

U.S. Research on Manganese Ores and Slags

The growing interest being shown throughout the world in the upgrading of manganese ores was indicated under "Notes and Comments" in *The Mining Journal* of May 6, 1955. The following article enlarges this conception by discussing recent research on the upgrading of sub-metallurgical manganese ores and slags in the United States, where the problem of finding a suitable process or combination of processes whereby indigenous sub-metallurgical grade ores in the government stockpiles can be upgraded to some readily usuable form, continues to receive active consideration. The article is condensed from a report by the Emergency Procurement Service.

In the course of the investigations EPS has given careful consideration to nearly a score of different new or unproven processes for extracting manganese from slags and various types of submetallurgical ores and slags. As a result, a half dozen of these processes have been deemed promising enough to justify financial assistance by the government for further research, development and test work.

FLOTATION AND PYROMETALLURGICAL RESEARCH

Studies regarding upgrading of government stockpiled sub-metallurgical ores have been undertaken. The Bureau of Mines has for a number of years been experimenting with the so-called oil-emulsion process which, in the case of low grade ores, would need to be followed by nodulizing or other means of agglomerating the product and eliminating base-metal impurities. The Bureau has at times and on selected specific types of low grade ores, secured in the laboratory fair to good recoveries of manganese, but has indicated that a full-scale mill test on mixed ores as stockpiled would as yet be ill-advised and premature.

In 1949-1950 the Domestic Manganese and Development Company of Butte operated a Government-owned flotation mill and a nodulizing plant on low grade Butte district ores. Some 41,000 tons of ore—22.11 per cent Mn—were treated, producing 7,301½ tons of nodules (46.19 per cent Mn). The overall recovery of manganese, however, was only 37.22 per cent and the base metal—zinc and lead—content of the nodules was so high that they were unusable by industry and were rejected for stockpiling.

If the need for conversion were immediate and urgent, the oil-emulsion flotation and nodulizing as now developed could be employed to obtain from these ores some manganese suitable for metallurgical use. Under present circumstances, however, the present costs and losses to the government in that procedure cannot be justified, and large-scale mill testing should be deferred.

In 1952 Southwestern Engineering Co. obtained large working samples of wad and other low grade manganese ores from Virginia, Tennessee, Arkansas, Maine, Arizona and New Mexico. They performed extensive analyses and ore tests upon each ore. Flotation possibilities were principally studied, but tests were also made by employing gravity and sink-float methods. Also, a few tests, employing leaching, were performed. Sweco reported that none of the sample ores were amenable to upgrading to metallurgical grade, by physical methods alone. More research, using chemical (leaching) methods, was indicated.

A contract was signed between DMPA and Mangaslag Inc. on December 31, 1952, whereby the latter was to test out in a large pilot plant a new process devised by the Bureau of Mines metallurgists for recovering manganese from open hearth slags, and possibly Aroostook ores. The process is pyrometallurgical, entailing the reduction of ore in a vertical blast furnace, possibly using anthracite coal instead of coke, to produce a spiegeleisen; then selective oxidation of the molten spiegeleisen in a special converter to produce a cinder containing the manganese, and a molten metal containing the iron and phosphorous; then reduction of the cinder in the blast furnace to produce ferromanganese; and blowing of the molten metal in a second converter to produce de-phosphorized steel melting scrap.

Since 1954 furnace operations have been commenced a number of times and each time have soon been stopped because of defects of one kind or another in the furnace and accessory equipment.

The Bureau has informally suggested that the most feasible way to upgrade the low grade manganese ores in the government stockpiles in the southwest of the United States might be direct reduction in the blast furnace to obtain a product intermediate in manganese content between standard spiegeleisen and ferromanganese. A product of that nature has little utilization at present in the steel industry but this procedure would have the virtue of recovering a fairly high perceneage of the manganese in ore as a product that could be consumed by the steel industry in an emergency when higher grade materials were in short supply.

COMBINED ROASTING — LEACHING

A contract was signed in 1952, between DMPA and Manganese Chemical Corporation, which provided that the company build a pilot plant and test the new carbamate (Dean-Leute) process for extracting manganese from the manganiferous iron ores of the Cuyuna Range, Minnesota. The pilot plant, having capacity to treat 200 tons per day of ore, is situated at Riverton, Minnesota.

The new process combines roasting and leaching of the ore, using an ammonia solution, with the aid of CO_2 gas; and the recycling of ammonia. The final basic product is manganese carbonate which can be readily converted to manganese oxide in nodules for use in the steel-making industry; also the manganese carbonate, which is in a very pure state, can be used to good advantage in the chemical industry. It can be also used as basic material for producing electrolytic manganese dioxide.

It seems reasonable to suppose that the pilot plant operation will prove the new process to be technically sound for the treatment of the Cuyuna low grade manganiferous iron ores, of which there are extensive reserves. Indications are that in addition the operation will show the process to be economically feasible.

A further process was the subject of a contract between DMPA and Nossen Laboratories Inc., the new process begins with a reducing roast which is omitted in the case of some ores. A nitric acid solution is employed to dissolve the manganese in the raw or roasted material. The pregnant solution is decomposed by heat in a specially designed equipment, thereby producing a solid product containing the manganese, and a vapour containing the nitrous fumes. The solid product is then treated by grinding and washing to give a high grade manganese dioxide concentrate. The nitrous fumes are recovered in the form of nitric acid for recycling in the process. As a result of pilot plant operations, the general opinion in government offices is that the metallurgy of the new process was proved to be technically sound. Certain difficulties, however, were encountered in connection with the mechanical operations of some of the equipment which had been selected or developed for use in the pilot plant. The data thus far obtained gives some indication that the process can be applied within practical limits of cost. In the pilot plant work, ores from Aroostook County, Maine, were used exclusively. These ores are of low manganese content and of a refractory character. Undoubtedly some of the less refractory ores of the U.S., having a higher manganese content, such as some of the submetallurgical grade ores from less extensive deposits in the southwest, could be treated more easily and cheaply per unit of manganese recovered, than the Aroostook ores.

OTHER ROASTING PROCESSES

Another process, upon which Bruce Williams Laboratories has applied for a patent, involves a roasting procedure followed by leaching and precipitation, with recycling of the principal reagents, and from this point of view is not new. It does involve, however, certain distinctive procedures, and the novel use of certain reagents which sets it apart from being merely a duplication of some other already known process. This new process is considered to hold promise.

On September 3, 1954, EPS signed a contract with Dr. L. W. King, providing that Dr. King is to erect and operate a small-scale pilot plant for the purpose of testing a process devised by him for recovering manganese, cobalt, and nickel, separately, from low grade, natural deposits in the U.S.

The King process employes roasting and leaching, using hydrochloric acid as the leaching agent. The manganese, cobalt and nickel are recovered separately, as oxides, by a series of chemical operations involving the changing of the degree of acidity of the solution by the addition of reagents, and by changes in solution temperatures.

For the economic success of the process Dr. King relies to some extent upon recycling a portion of the hydrochloric acid, but principally he relies upon manufacturing the acid very cheaply from low cost raw materials by means of a special European process upon which he holds certain rights.

The present contract provides only for testing the process to recover the manganese, cobalt and nickel from the ores. If the pilot plant demonstrates success in this, the intention of EPS would be to assist Dr. King with funds to erect additional facilities to test his process for manufacturing cheap hydrochloric acid.

Negotiations are now in progress between EPS and Diamond Alkali Co. with a view to making a contract whereby the latter will test the Sylvester process for recovering manganese from slags and low grade ores of Aroostook County. This process, developed within recent years in the laboratory of Sylvester and Co., Ohio, is a roasting process whereby manganiferous slags and ores of the types above named are converted pyro-chemically from a refractory state to a state amenable to concentration by magnetic separation.

Machinery and Equipment

Plastics in the Coal Mine

The most prominent feature of the British Geon display at the British Plastics Exhibition to be held at the National Hall, Olympia, on June 1-11, will be a full-scale model of a coal-mine with a coal conveyor belt made with Geon PVC. A number of other interesting uses of PVC in the mines will also be displayed, including PVC ventilation tubes, PVC coated brattice cloth, first aid equipment incorporating PVC, cables sheathed and insulated with PVC, as well as PVC protective clothing as supplied to the National Coal Board.

Remarkable Loading Figures

Some excellent performance figures have been published showing the output of the Blaw Knox BK50 excavators used in loading railway trucks at stocking depots of the National Coal Board.

At the Derwenthaugh Coke Works, Blaydon-on-Tyne, the BK50 is fitted with the special 1 cu. yd. face shovel bucket, specially developed for coal handling, and has been proved over the last few months to be able to load 180 tons of coke or light coal per hour—equivalent to 10 or more railway trucks.

The BK50 excavator

In the Manchester area the BK50, fitted with the standard ½ cu. yd. bucket, has consistently loaded more than 600 tons of 2 in. down industrial coal each day, at a rate of five 16 ton trucks an hour.

A Tractable Mule

A new all-purpose portable power unit has been produced by A. C. Morrison (Engineers) Ltd. Named the Power Mule, the unit was exhibited for the first time at the 1955 B.I.F. The Power Mule's greatest attribute is its versatility, for it can be used in many industrial applications including oilfields and quarries for operating pumps, elevators, hoists, winches, conveyors, compressors, and stone crushers.

The prime mover of the unit is the Fordson Major industrial diesel engine, which provides an output of 35 b.h.p. at 1,500 r.p.m. and 40 b.h.p. at 1,600 r.p.m. It is of the cold start, direct injection type, with tropical radiator cooling. The water is circulated by a centrifugal pump which is thermosyphon assisted and thermostatically controlled. Additional cooling is provided by an 18 in. diameter four-blade fan. Electric starting is by means of a 12 volt Exide starter battery which is provided with an on/off switch independent of the main control panel, and is housed in the base of the unit with the 10 gal. capacity fuel tank.

Running under full load at 1,500 r.p.m., the Power Mule consumes only 1.68 gal. of fuel per hour. Its main dimensions are 62 in. long overall x 49 in. high x 36 in. wide overall. The weight is 1,332 lb.

METALS, MINERALS AND ALLOYS

A Bill calling for continued government buying of seven domestically mined ores until 1968 has been approved by the Senate Interior Committee. The purpose of the measure is to assure domestic miners of tungsten, manganese, chromite, mica, asbestos, beryl and columbium-tantalum ores that they will have a market for their products so as to encourage discovery development and the production of these mines. Under the measure the government would buy as much of the minerals as offered to it by domestic producers at prices no lower than present market levels. At present the government buys most of these minerals under purchase programmes designed to provide a market for domestic producers. These programmes, at present scheduled to end in 1958, had a limit on how much of each mineral could be bought.

Last week the G.S.A. announced the end of its buying of columbium-tantalum ore. If enacted by Congress, the Bill would in some degree reverse this policy by requiring the purchase of domestically produced columbium-tantalum ores. A special section of the Bill provides that the extended buying time shall not apply to columbium-tantalum ores of foreign origin.

COPPER.—Rhodesian Selection Trust Group have now decided on a provisional method of passing on the benefit of the lower price which they have fixed for their blister copper to their customers, but it has not been possible to arrive at a general pricing formula. A proportion of the R.S.T. products—rolled copper rods—will be based on a price of £280 per ton. Other products, such as all rolled copper sheet, will be based on a price of £286 per ton, while the remainder will be offered at the current London Metal Exchange price.

Although these prices have been fixed for 30 days they have had no effect on the free market prices which have continued to rise this week. Nor does there seem much likelihood of the prices softening in the near future.

In Japan, the strike begun last week in the non-ferrous metal producing companies has now spread to all the 65,000 non-ferrous metal workers, who are demanding higher wages. Chile, whose production has been gradually expanding, would appear to have sold the whole of its exportable copper production this year. A spokesman of one of the American companies operating in Chile in making this announcement, added that the sales included some companies in the United States from whom fabricators expected to buy copper to cover their consumption requirements. Continental demand is being maintained at current prices while the possibilities of a dock strike in the U.K. can not be interpreted as favourable.

Moreover, nearby copper in the United States continues very tight indeed and domestic producers this week experienced unabated demand. The tight statistical position has lead the Office of Defence Mobilisation to divert about 16,000 tons intended for the stockpile in the third quarter of this year to be made available to industry to help relieve the shortage. This copper will be sold at the U.S. market price, plus any exceptional costs concerned in its handling and transportation.

The third quarter copper diversion follows similar moves made in the first and second quarters of this year. An appreciable release of the metal by the government was also made during the last quarter of 1954 to ameliorate the position which arose as a result of the strikes among U.S. and Chile copper producers.

The U.S. Foreign Commerce Bureau has announced that the supplementary quota of 3,000 s. tons of copper-base alloy scrap for West Germany, established on May 9, would be limited to shipments "for consumption in the federal republic of Germany." Licences for the export of this scrap to Germany from June 1 to June 15 would now be accepted but the licences would not become valid until July 1.

The Bureau also announced that the May 31 deadline for the submission of export licence applications against the 5,000 ton quota for copper scrap and the 7,000 ton (copper content) quota for copper-base alloy scrap, previously established in the second quarter, now applied "only to materials containing 40 per cent or more of copper." These quotas covered shipments to all destinations except Canada. Application to export scrap material containing less than 40 per cent copper could be submitted at any time.

LEAD AND ZINC.—Although the O.D.M. has announced that the U.S. Government would be in a position to continue to purchase both lead and zinc for the stockpile throughout 1955 and probably 1956, the strong improvement in the statistical position for both of these metals indicate that little, if any, would be offered to the stockpile authorities in the near future. This comment applies more to lead than to zinc and is supported by Mr. Clinton Crane, chairman of the St. Joseph Lead Company, who told shareholders at the company's annual meeting that domestic producers of lead and zinc at present were considerably less dependent on government stockpile purchases for support than they were last year. Indeed, the president of the St. Joseph Lead Company, Mr. Andrew Fletcher, thought that in order to maintain normal metal production of lead and zinc in the U.S., prices of 15 c. per lb. for lead and 13 c. for zinc were required as newly mined output of both metals, he believed, would fall away at quotations below these levels.

Routine demand for zinc has been firm and domestic zinc shipments in April were the highest since 1945 and domestic producers are looking for a 13 c. per lb. market on Prime Western zinc. Whether or not the increase eventuates will depend on continued favourable labour conditions and the U.S. automobile industry.

Demand for lead has been persistently firm. In the U.K. consumption for the month of March reached its highest level since 1940. In New York demand was good for prompt metal through June shipment at flat as well as at the average price.

TIN.—The tin market has been quietly steady but U.S. consumption in March was at its highest since January, 1951, with a total of off-take of 8,050 l.tons comprising 5,200 tons of primary and 2,850 tons of secondary, and imported tin base alloys. This compares with consumption in February of 7,280 l.tons.

In his speech to shareholders at the annual meeting of the Straits Trading Company held in Singapore last week (a full report of which appears on page 566) Sir Ewen Fergusson disclosed that the new Butterworth smelter should be ready to begin trials in two or three months. This will bring a new and highly efficient smelting unit into operation in a location well suited to handling tin ores from North Malaya and Siam and will no doubt provide the company with the opportunity of overhauling some of its older plant. World smelter capacity is to-day probably in the neighbourhood of double smelter output so that there is every incentive for efficiency in this section of the industry.

True this incentive appears for the moment not to be fully operative in Texas (a matter to which we devote some attention on page 557), but even so it is difficult to visualize the Texas smelter going on for ever and when it does close down the Straits Trading organization will be well equipped to handle whatever tonnage has been finding its way there from Indonesia and Siam.

With regard to the latter country the somewhat improved prospects for convertibility may mean that in the not too distant future the currency difficulties which have been diverting some Siamese production away from the Malayan smelter may be removed.

A heavy gauge, electrically-coated tinplate is now being produced in the U.S. for many motor-car and radio parts. The new tinplate, which is as heavy as 0.3 in. thick, is being used in the U.S. to replace terne-plate, aluminium, zinc-coated sheets and other metals of high cost. These facts were made known earlier this week by Dr. W. E. Hoare, assistant director of the Tin Research Institute at the tin conference in Utrecht this week. Dr. Hoare also stated that the heavy gauge product was excellent for subsequent plating or painting and that its use cut down material and processing costs.

ALUMINIUM.—Owing to the prospective improvement in Spain's domestic aluminium supply, which should result in much decreased import requirements, the control of Spanish aluminium imports has now been brought under the authority of the Ministry of Industry, although the operation of the import control will remain as at present in the hands of the Government's strategic ore regulatory board (COMEIN).

ASBESTOS.—According to the Philadelphia organ, *Asbestos*, the fibre supply/demand ratio has entered a new phase and currently all grades, with the exception of crude, are in plentiful supply. Normal growth is expected to continue, however, as current uses increase in volume and new uses are developed. Consumption during the March quarter of 1955 showed an improvement of approximately 5 per cent over the same period of the preceding year and it is expected that the output and shipments in April should exceed the figures recorded for March.

COLUMBIUM/TANTALUM.—The General Services Administration has announced that it is retiring from the market for columbium and tantalum ore. The explanation for the

decision is that receipts, plus forward commitments to purchase columbite/tantalite, have reached the projected target figure of 15,000,000 lb.

It will be recalled that the columbium/tantalum purchase programme was introduced through the promulgation of an order from D.M.P.A. on May 28, 1952, under which a bonus of 100 per cent of the base price to the actual producers of the ore until the end of 1956, or until the U.S. Government had amassed 7,500 s.tons. This is the first of nine long range expansion projects conducted by the U.S. Government to be completed.

MANGANESE.—The North-West Guiana Mining Company has been granted a 30 year exploration lease in British Guiana. The company, which has its headquarters in the U.K., was expected to begin production by 1958 at the latest by which time it was estimated that it would have spent approximately $20,000,000 on installation and exploration work.

PLATINUM.—In the absence of any platinum offerings from Soviet sources for about a month, together with the heavy U.S. industrial consumption, primarily by the petroleum industry, the platinum market in New York has been firm with bids of $76 and offers at $77 generally prevailing in the dealers' market. However, primary sellers of the metal are continuing to maintain a range of $77 to $80 depending on quantity available and the trade inclines towards the belief that prices may now tend to nudge closer to the top quotation of $80. The longer term prospects for the metal appear to be good and it is felt that if there is any expansion in demand from the jewellery trade prices may go above the $80 level.

TITANIUM.—A substantially improved titanium metal product for use as an addition agent in the manufacture of ferrous and non-ferrous alloys has been announced by the Du Pont Company. The product will sell at a lower price and is qualitatively better than the non-ductile grades previously offered. Designated as titanium metal-grade NDA, it is produced in either pellets at $1.75 per lb. or as "fines" at $1.50 per lb. It is reported that it has a high purity with a maximum titanium content of 97 per cent.

According to an agency message from Tokyo the Kobe Steel Works has concluded contracts with U.S. firms for the export of titanium base alloy products. This is the first time since the war that Japan has contracted to send titanium products to the United States. Although the spokesman of the Kobe Steel Works said the products involved included slab sheet, billet, wire bars and wire rods for delivery to U.S. aircraft manufacturers, he refused to give details of the amounts to be exported.

The U.S. Bureau of Mines and the Wah Chang Corporation have entered into a co-operative agreement to conduct research and development work on the reduction of titanium sponge at the Government's Boulder City, Nevada, experimental station.

ZIRCONIUM.—The Carborundum Metals Co. has reduced its prices by as much as 40 per cent on zirconium metal for nuclear reactors and for chemical industries. Price cuts were made possible by the company's ability to reduce the cost of the basic metal, the selection of suitable fabricators, and particularly the ability of those fabricators to increase their yields of acceptable, on specification, material.

DIAMONDS.—A Swiss biophysicist and a Puerto Rican chemist have jointy discovered a process for the manufacture of industrial diamonds, according to an agency message from Spring Valley, New York. The diamonds, the message adds, range in size from 1/100 to 1/300 of a carat and it is hoped in two years' time to make their diamonds available to industry at between $1 and $1.75 a carat against $2.75 and $3.75 a carat for natural industrial diamonds.

The London Metal Market

(From Our Metal Exchange Correspondent)

In spite of the fixed basis price for copper introduced by Roan Antelope and Mufulira Copper Mines for thirty days for the supply of the metal to U.K. consumers the open market has shown renewed strength and prices are now considerably higher than before the announcement, quotations being over £320 per ton for cash and well above £300 for the three months' position. The backwardation has increased to about £18 per ton, and the "near position" seems very tight. It seems unlikely that the copper being sold by tender by the Board of Trade will have much effect upon the market here.

Labour troubles looming ahead in Japan and the threatened dock strike in the U.K. do not contribute to steady markets. Demand from the Continent keeps up fairly well at current world prices. It is reported that Chilean exportable copper is sold out for the rest of this year. Copper is still tight in the U.S.A., and it is reported that a further 16,000 tons due for delivery to the stockpile during the third quarter of the year will be made available to domestic consumers.

In the tin market prices have receded slightly this week after the reported cessation of rioting in Singapore. There is no particular feature to report, and the Eastern price on Thursday morning was £732 per ton c.i.f. Europe.

Lead has been comparatively steady. U.K. consumption for the month of March was the highest since 1940. It has been stated that American producers may not need to offer metal to the stockpile, which seems to imply that demand is sufficiently good to take care of current production at the present price of 15 c. per lb.

Zinc has shown a firm tendency recently and demand appears to be quite good, the threatened dock strike possibly being a contributory factor. In America there has been quite a good routine business, and although there has been talk of an increase in the price to 13 c. per lb. it is doubtful whether this will materialise in the near future.

Closing prices and turnovers are given in the following table:—

	May 12		May 19	
	Buyers	*Sellers*	*Buyers*	*Sellers*
Copper				
Cash	£312	£313	£334½	£335
Three months	£297½	£298	£314½	£315
Settlement	£313		£335	
Week's turnover	5,000 tons		3,300 tons	
Tin				
Cash	£714	£714½	£714	£714½
Three months	£715	£717	£716½	£717
Settlement	£714½		£714½	
Week's turnover	660 tons		465 tons	
Lead				
Current half month	£102⅜	£103	£103	£103⅛
Three months	£103	£103⅛	£102½	£102⅝
Week's turnover	3,400 tons		2,675 tons	
Zinc				
Current half month	£89½	£89⅝	£89⅜	£90
Three months	£88⅜	£88½	£88⅛	£88⅜
Week's turnover	3,575 tons		2,925 tons	

OTHER LONDON PRICES — MAY 19

METALS

Aluminium, 99.5%, £163 per ton
Antimony—
English (99%) delivered, 10 cwt. and over £210 per ton
Crude (70%) £200 per ton
Ore (60% basis) 22s./24s. nom. per unit, c.i.f.
Bismuth (min. 2 cwt. lots) 16s. lb.
Cadmium (Empire) nominal
Chromium, 6s. 5d./7s. lb.
Cobalt, 21s. lb.
Gold, 250s. 9d.
Iridium, £30 oz. nom.
Manganese Metal (96%-98%) £255/£265 according to quantity
Magnesium, 2s. 4d. lb.
Nickel, 99.5% (home trade £519 per ton
Osmium, £30 oz. nom.
Osmiridium, £40 oz. nom.
Palladium, £6 12s. 6d./£7 5s. oz.
Platinum, £27 10s./£29
Rhodium, £40
Ruthenium, £16 oz.
Quicksilver, £108 ex-warehouse
Selenium, 43s. nom. per lb.
Silver, 78d. f.oz. spot and 77⅞d. f'd
Tellurium, 15s./16s. lb.

ORES, ALLOYS, ETC.

Bismuth .. .. 60% 8s. 3d. lb. c.i.f.
20% 3s. 3d. lb. c.i.f.
Chrome Ore—
Rhodesian Metallurgical (semi-friable) 48% £13 per ton c.i.f.
,, Refractory 45% .. £13 per ton c.i.f.
,, Smalls 42% .. £10 2s. 6d. per ton c.i.f.
Magnesite, ground calcined .. £26-£27 d/d
Magnesite, Raw .. .. £10-£11 d/d
Molybdenite (85% basis) .. 105s. 3d.-108s. 1d. per unit c.i.f.
Wolfram and Scheelite (65%) .. 225s./230s. c.i.f.
Tungsten Metal Powder (98% Min. W.) .. 19s. 7d. nom. per lb. (home)
Ferro-tungsten (80%-85%) .. 16s. 7d. nom. per lb. (home)
Carbide, 4-cwt. lots .. .. £37 6s. 3d. d/d per ton
Ferro-manganese, home .. £53 17s. 6d. per ton
Manganese Ore Indian c.i.f. Europe (46%-48%) .. .. 79d./80d. per unit
Manganese Ore (38%-40%) .. 67d./69d. per unit
Brass Wire .. .. 3s. 1¾d. per lb. basis
Brass Tubes, solid drawn . 2s. 5¼d. per lb. basis

THE MINING MARKETS

(by our Stock Exchange Correspondent)

The past week opened quietly in the Stock Exchange but, later on, renewed hopes of a Conservative victory at the polls caused an increase in activity and a rise in share prices.

Kaffirs were disturbed by continuing moves for an increase in miners' wages and political considerations. In this last connection it is thought that the flotation of some new properties may have to be postponed due to unfavourable market conditions.

Among finance houses African and European failed to respond to the figures which were, on the whole, rather disappointing. West Witwatersrand gained the turn due to continued progress by leading mines on the Far West Rand. The publication of the West Rand Investment Trust accounts caused considerable interest; the company has lightened its holdings in Libanon and Venterspost and acquired interests in Buffelsfontein and Hartebeestfontein. The market value of investments showed a sharp rise and the switch of investments appears a shrewd one.

Among individual Rand mines, prices tended to drift and there were few noteworthy features. Crown advanced following the report which, although pointing to a comparatively short life for the property, raised hopes concerning the ultimate breakup value.

Orange Free State shares were under the same cloud as the remainder of the Kaffir market and prices generally finished lower. There was some activity in Free State Geduld on Wednesday which led to an advance in the share price. St. Helena also held their own well in an unsteady market. The lower profits achieved by Orange Free State Investment Trust shares were not considered significant as the company's investments rose in value over the year.

Among diamond shares, there were some buyers about for Consolidated African Selection Trust shares and Sir Ernest Oppenheimer's report that the demand for gem stones remains at a high level caused a revival in De Beers. There was a further rise in the company's total revenue for 1954. Sir Ernest issued a warning that American stockpiling is unlikely to continue indefinitely but by then it is hoped that some of the company's other interests will be beginning to pay their way.

Coppers were affected by the weaker tone on Wall Street and selling in Paris. Shares of most of the leading companies declined. Good results from Mufulira and Roan Antelope brought about a rise in Rhodesian Selection Trust and news that Rio Tinto had staked another sizable claim in Canada, with a view to prospecting for copper, caused an advance in these shares also. Tanks closed above the worst following an increase in the Union Minière dividend.

Eastern tin shares were quiet, due to rioting in Singapore, but Ayer Hitam were in demand and the shares hardened. Siamese tin are negotiating to acquire Renong, Katu, and Burma-Malay Tin. The shares remained unchanged on the news. In the Nigerian section, a report that the Americans will not renew their columbite contracts caused a sharp fall among producers of this mineral. It should be noted that while Jantar are on a six months contract basis, Amalgamated Tin and Bisichi have agreements up to the end of 1956. The chairmen of the respective companies are understood to welcome a return to the free marketing of the mineral, which may well continue to sell at a satisfactory price. The increased distribution by London Tin caused the stock to gain the turn.

Among lead/zinc shares, higher dividends by Consolidated Zinc and New Broken Hill were well received and other leading producers advanced in sympathy. The rise in the price of silver was another favourable factor.

There was more interest in miscellaneous base metals and Central Provinces Manganese went ahead sharply following the report.

Among Canadians, the lower trend on Wall Street caused easier prices despite some activity among the base metal producers.

FINANCE	Price May 18	+ or — on week
African & European	3	+ ½
Anglo American Corpn.	7⅛	
Anglo-French	21/3	—3d
Anglo Transvaal Consol.	25/7½	—7½d
Central Mining (£1 shrs.)	40/6	—1/-
Consolidated Goldfields	59/4½	
Consol. Mines Selection	37/6	—7½d
East Rand Consols.	2/4½	—1½d
General Mining	5	—¼
H.E. Prop.	10/-	+ 4½d
Johnnies	37/3	—3d
Rand Mines	3⅛	+ ⅛
Rand Selection	41/3	—7½d
Union Corporation	38/3	—1/-
Vereeniging Estates	4	+ ⅛
Writs	41/10½	
West Wits	40/-	+ 6d
RAND GOLD		
Blyvoors	29/9	+ 6d
Brakpan	6/-	
Buffelsfontein	33/-	—1/3
City Deep	12/6	
Consol. Main Reef	21/3	
Crown	46/10½	+ 7½d
Daggas	56/3	
Dominion Reefs	35/-	—1/3
Doornfontein	26/3	—3d
Durban Deep	31/3	—1/3
E. Champs	7/6	—3d
E. Daggas	10/7½	+ 4½d
E. Geduld (4s. units)	28/6	
E. Rand Props	2⅛	
Geduld	3	+ ⅛
Govt. Areas	7/6	
Grootvlei	20/-	
Hartebeestfontein	30/9	—1/-
Libanon	8/4½	—3d
Luipaards Vlei	22/3	—3d
Marievale	20/-	—3d
New Kleinfontein	7/3	—3d
New Pioneer	14/3	—9d
Randfontein	59/-	—2/-
Robinson Deep	16/9	+ 6d
Rose Deep	14/-	
Simmer & Jack	3/9	
S.A. Lands	23/9	
Springs	2/6	
Stilfontein	26/-	+ 3d
Sub Nigel	37/6	
Vaal Reefs	31/3	—1/-
Van Dyk	3/9	—3d
Venterspost	13/-	
Vlakfontein	16/3	
Vogelstruisbult	31/6	
West Driefontein	5½	—⅛
RAND GOLD contd.		
W. Rand Consolidated	43/1½	—1/3
Western Reefs	41/10½	
O.F.S. GOLD		
Freddies	4/3	—4½d
Freddies Consolidated	6/3	—3d
F.S. Geduld	4⅞	—½
Geoffries	17/3	—1/3
Harmony	34/-	—1/3
Loraine	10/4½	—9d
Lydenburg Estates	20/-	—7½d
Merriespruit	11/3	—6d
Middle Wits	16/9	—9d
Ofsits	3½	—½
President Brand	70/-	—1/10½
President Steyn	37/-	—1/9
St. Helena	29/-	—3d
Virginia Ord.	14/3	—3d
Welkom	21/6	—3d
Western Holdings	4⅛	—½
WEST AFRICAN GOLD		
Amalgamated Banket	2/6	
Ariston	6/3	—1½d
Ashanti	24/-	—9d
Bibiani	4/9	—3d
Bremang	1/4½	
G.C. Main Reef	3/4½	—1½d
Konongo	3/-	
Lyndhurst Deep	1/4½ xd	
Marlu	1/3	
Taquah	2/6	
Western Selection	10/3	—6d
AUSTRALIAN GOLD		
Gold Mines of Kalgoorlie	12/9	+ 1½d
Great Boulder Prop.	9/9	+ 3d
Lake View & Star	15/6	
Mount Morgan	19/3	—3d
North Kalgurli	7/-	—1½d
Sons of Gwalia	5/3	+ 9d
Western Mining	9/-	
MISCELLANEOUS GOLD		
Cam & Motor	8/4½	
Champion Reef	3/10½	—1½d
Falcon Mines	7/-	
Globe & Phoenix	23/6	
G.F. Rhodesian	6/3	
Motapa	1/4½	
Mysore	4/9	
Nundydroog	5/9	—3d
Ooregum	4/6	
St. John d'El Rey	12/6 xd	—1/-
Zams	48/1½ xd	—1/1½
DIAMONDS & PLATINUM		
Anglo American Inv.	8⅛	+ ⅛
Casts	25/6	+ 3d
Cons. Diam. of S.W.A.	7	
De Beers Defd. Bearer	5⅛	+ ⅛
De Beers Pfd. Bearer	15⅛	+ ⅛
Pots Platinum	8/3	—3d
Waterval	14/4½	
COPPER		
Bancroft	40/-	—1/9
Chartered	56/6	—1/-
Esperanza	4/6	—3d
Messina	7⅛	—¼
Nchanga	13¼	—½
Rhod. Anglo-American	97/3	—1/3
Rhod. Katanga	19/6	—1/6
Rhodesian Selection	35/6	+ 4½d
Rhokana	35¼	—¾
Rio Tinto	55	+ 1
Roan Antelope	25/6	+ 9d
Selection Trust	70/-	—7½d
Tanks	6½	—⅛
Tharsis Sulphur Br.	7	+ ¼
TIN (Eastern)		
Ayer Hitam	28/6	+ 1/-
Gopeng	7/3	
Hongkong	7/4½	
Ipoh	22/6	
Kamunting	7/-	—1½d
Kepong Dredging	3/-	
Kinta Tin Mines	12/6	+ 6d
Malayan Dredging	8/3	
Pahang	11/- xd	—3d
Pengkalen	10/10½	+ 7½d
Petaling	9/3 xd	—3d
Rambutan	17/9	
Siamese Tin	6/3	
Southern Kinta	18/-	+ 1½d
S. Malayan	7/3	
S. Tronoh	10/6	+ 3d
Sungei Kinta	11/9	
Tekka Taiping	6/1½	+ 1½d
Tronoh	8/-	+ 1½d
TIN (Nigerian and Miscellaneous)		
Amalgamated Tin	13/-	—10½d
Beralt Tin	30/6	—3d
Bisichi	7/-	—10½d
British Tin Inv.	19/6	+ 6d
Ex-Lands Nigeria	2/9	+ 3d
Geevor Tin	12/4½	+ 1½d
TIN (Nigerian and Miscellaneous) contd.		
Gold & Base Metal	2/6	
Jantar Nigeria	7/3 xd	—1/6
Jos Tin Area	13/9	
Kaduna Prospectors	2/4½	
Kaduna Syndicate	2/4½	
London Tin	8/3	+ 3d
United Tin	2/6	—3d
SILVER, LEAD, ZINC		
Broken Hill South	52/6	—6d
Burma Corporation	2/3	
Consol. Zinc	48/6	+ 1/3
Lake George	13/3	
Mount Isa	52/9	
New Broken Hill	37/3	+ 2/6
North Broken Hill	73/6	+ 1/-
Rhodesian Broken Hill	12/1½	
San Francisco Mines	22/6	+ 1/-
Uruwira	6/7½	—3d
MISCELLANEOUS BASE METALS & COAL		
Amal. Collieries of S.A.	43/6	+ 1½d
Associated Manganese	38/1½	
Cape Asbestos	11/6	
C.P. Manganese	40/-	+ 2/9
Consol. Murchison	63/1½	+ 7½d
Natal Navigation	2⅜	
Turner & Newall	106/6	+ 1/6
Wankie	18/-	
Witbank Colliery	4⅛	+ ⅛
CANADIAN MINES		
Dome	$30	
Hollinger	$41¼	—2½
Hudson Bay Mining	$108	—3
International Nickel	$116½	—1½
MiningCorpn.ofCanada	£7½	—¼
Noranda	$88	
Quemont	£8½	—¼
Yukon	4/4½	+ 1½d
OIL		
British Petroleum	83/9	+ 6/3
Apex	28/6	—6d
Attock	46/3	
Burmah	6½	+ ⅛
Canadian Eagle	49/6	—3d
Mexican Eagle	21/4½ xd	—1½d
Shell	6⅛	—⅛
Trinidad Leasehold	31/- xd	
T.P.D.	23/-	—9d
Ultramar	30/4½	+ 1/-

COMPANY NEWS AND VIEWS

Bright Outlook for Diamonds

Sir Ernest Oppenheimer in his statement accompanying the full report and accounts of De Beers Consolidated Mines states that the demand for gem diamonds is substantially greater than the production from all sources and that the Consolidated Company of South West Africa has increased the capacity of its treatment plants to handle a monthly output of 70,000 cts. compared with 57,000 cts. previously. The former figure should be reached by the end of the year.

The immediate outlook for the industrial section of the diamond trade is equally promising. Current demand is exceptionally strong and Sir Ernest declares that this year's production should be readily absorbed. However, he reminds that stockpiling purchases will not continue indefinitely and when these purchases cease De Beers will be faced with overproduction. This situation is in sharp contrast to the trading position for gem stones, where the difficulty is of finding supplies to meet known demands rather than seeking additional outlets.

In any event, 1955, Sir Ernest says, looks like being a prosperous year for the diamond trade.

Total group income during 1954 amounted to £32,523,023 (£31,386,424), of which £26,487,728 was received on diamond account. Income from investments brought in £4,622,964 against £4,598,053, and after providing for mining expenditure and tax liabilities, the profit for the year was £17,729,152 compared with £18,354,829.

The dividend distribution was maintained at 200 per cent on the 5s. deferred shares and this, with the £1 per share paid on the preference shares, absorbed £8,964,851, leaving the carry forward at the very substantial figure of £24,092,904 compared with £20,193,209.

Meeting, Kimberley, June 8. Sir Ernest Oppenheimer's statement appears on page 568.

"Ofsits" Investments Valued at £46,500,000

The central feature of the full report and accounts of Orange Free State Investment Trust for the year 1954 was the very substantial increase in the market value of the company's quoted investments. These were recorded in the balance sheet at £46,546,586 and compare with a market valuation at the end of 1953 of £26,492,699. At the same time, the book value of "Ofsits" total investments expanded by only £276,783 to £16,460,685.

The profit and loss account showed that revenue for the year totalled £327,043 (£406,781) and after providing for general expenses, interest charges, and tax liabilities, the profit for the year was £27,052. The balance carried forward was £86,107 compared with £59,055.

Sir Ernest Oppenheimer, chairman. Meeting, Johannesburg, June 3.

Changes in "Writs" Portfolio

The full report and accounts of West Rand Investment Trust reaveals some interesting changes in the company's portfolio. Stilfontein shares (235,150 shares) have been acquired for the first time and the company has increased its share holding in Buffelsfontein from 500,000 to 825,714 and in Hartebeestfontein from 500,000 to 1,053,000. Its interest in West Wits was strengthened from 976,235 to 1,042,389, while its holding in Vaal Reefs expanded from 792,465 shares to 1,650,503. In contrast, the company has reduced its holdings in Venterspost and Libanon to 100,000 shares each from 260,194 shares and 250,054 shares respectively. The aforementioned changes in the company's portfolio are additional to its holding of 2,516,824 shares in Blyvooruitzicht, 1,000,000 shares in Doornfontein, 707,649 shares (877,249 shares in 1953) of Western Reefs, 1,000,067 shares in West Driefontein, 434,400 shares in Western Ultra Deep Levels and 53,083 shares in Witwatersrand Deep. Sir Ernest Oppenheimer, chairman. Meeting, Johannesburg, June 3.

Consolidated Zinc's Profit Expansion

Consolidated Zinc Corporation in a preliminary profit statement show that the consolidated net earnings for 1954 jumped by almost £1,000,000—the precise figures being given as £2,383,378 against £1,393,022 in 1953. The company is recommending the payment of a final dividend of 2s. 6d. per share making, with the interim already paid, a total of 3s. 9d. per share. This absorbed £852,597 against £540,206 in 1953. Taken in conjunction with the preference dividend paid outgoings to shareholders absorbed £963,393 leaving the sum of £905,445 to be carried forward.

The company has also declared a dividend of 2¼ per cent (actual) on the issued 4½ per cent cumulative preference shares of the Corporation in respect of the period January 1—June 30, 1955. The accounts and reports will be posted to shareholders on May 31.

New Broken Hill Pay 3s.

New Broken Hill Consolidated in a preliminary profit statement have reported net earnings for the year 1954 of £597,274. This figure compares with £413,262 in 1953 and was struck after providing £307,000 (£277,400) for depreciation and £543,960 (£264,660) for taxation. The company has recommended a final dividend of 1s. 9d. per share making, with the interim already paid, a total for the year of 3s. per share compared with 1s. 6d. for 1953. The dividends payments absorbed £384,454 leaving a balance of £270,007 to be carried forward. Meeting, June 22.

London Tin Pays 4 Per Cent More at 28 Per Cent

London Tin Corporation, in a preliminary profit statement, estimated that net earnings for the year ended April, 1955, would be approximately £680,000, or approximately £200,000 more than the previous year's figure of £484,664. The company has declared its dividend for the year as an interim and this distribution at 28 per cent compares with 24 per cent in 1953-54 and will obsorb £582,536 against £477,607. The sum of £75,000 (Nil) is allocated to reserves. No final dividend will be recommended when the accounts are issued about September next and the dividend will be payable on June 16. Mr. J. Ivan Spens is chairman.

Spaarwater's Profit

The conversion of a working loss totalling £29,452 in respect of 1953 into a working profit of £4,404 during the year ended December 31, 1954 by Spaarwater Gold Mining Company was mainly due to the higher grade of ore reserves available. In addition, a useful contribution to the raising of the average grade of ore milled was made by technical improvements including the successful application of resuing in stoping and an increase in the percentage of waste rock sorted on the surface. These changes were amply demonstrated by the fact that although the tonnage milled was virtually the same in both 1953 and 1954, a total of 213,967 tons of ore was mined in the former year, whereas in 1954 the figure was much higher at 243,313 tons. By the use of resuing in stoping it has become economic to mine in certain areas previously considered unpayable.

Zams to Issue 1 for 20 at Par

It has been announced by the Zambesia Exploring Company that an offer of shares in the proportion of one unit for every twenty held will be made to stockholders at par. This will involve issuing £43,266 of the reserve share capital.

In order to adjust the company's financial year with the fiscal year, it was recently decided that the annual financial period would be changed to March 31, instead of to December 31. The following preliminary profit figures therefore relate to fifteen months as compared with only twelve months previously. But despite the proportionate rise which this alteration naturally brought about there was a distinct inprovement in trading results.

Profits were £195,444 as compared with £101,443 which after all charges, including taxation, became £107,500 as against £30,537.

Dividends on the issued ordinary capital of £865,333 in ordinary stock of £1 were accordingly raised to 22 per cent from the equivalent of 17.6 per cent in respect of the preceding twelve months.

Owing to the different natures of their businesses, the accounts of the wholly owned subsidiary, The Zambesia Investment Company, are not consolidated with those of the parent. In order to obtain a correct overall picture, therefore, it is necessary to consider both sets of figures collectively.

During the fifteen months which ended on March 31, 1955,

Zambesia Investment earned total profits of £112,827 as against £79,244 for the preceding twelve months. After taxation and other charges an amount of £59,207 (£40,864) remained. No dividends were paid and the unappropriated profit carried forward rose to £162,782 from £103,575.

Rho-Kats' Agreement with Tanks Holdings

In order to obtain the necessary funds to subscribe for an additional 62,500 shares of Kansanshi Copper Mining Company, which have become available owing to other participants not wishing to take up their proportions of a new issue to be made shortly, Rhodesia-Katanga Company has entered into an agreement with Tanganyika Holdings whereby funds for this subscription will be provided. The sum in question amounts to £62,500, and will be advanced free of interest by Tanks Holdings in exchange for an option until March 31, 1958 to subscribe at par for 100,000 Rho-Kats shares.

The report and accounts of Rhodesia-Katanga covering the period up to December 31, 1954 contains the announcement that preparations are in progress for resumption of work at the mine. Progress reports will be issued periodically to shareholders. During the past financial year the company made a profit of £1,500 in addition to which £330,130 representing past expenditure on prospecting and development at the Kansanshi Mine was written back. After deducting the net accumulated loss of £292,529, a credit balance of £9,101 was carried forward. Captain C. Waterhouse is chairman. Meeting London June 15.

British Petroleum's Profit Expansion

Consolidated trading profit of British Petroleum for 1954, before depreciation expanded from £63,883,828 to £75,348,941. The net profit contracted from £24,382,850 to £23,962,764 but this was struck after providing £30,406,091—or £10,349,840 more for depreciation and other write offs as in the preceding year.

Trading profits were struck after Kuwait taxation, amounting to £36,699,692 (£30,748,542), and a claim for relief in respect of this charge is now under discussion with the Inland Revenue. Extracts from the chairman's statement appear on page 569 of this issue.

Lobitos Pays More

Lobitos Oilfields, in a preliminary profit statement, has announced an advance in group net profits from £593,651 to £869,456 in 1954. A final dividend of 8 per cent is recommended bringing the total distribution for the year to 14 per cent on an issued capital of £3,000,000 as increased by the 1-for-2 scrip issue last year. A special distribution of 2 per cent has also been declared. Mr. F. C. Bowring is chairman. Meeting, London, June 20.

Siamese Tin Negotiating for Purchase of Renong Tin, Katu Tin and Burma-Malay Tin.—Siamese Tin Syndicate has announced that negotiations are taking place for the Syndicate to acquire the interests of Renong Consolidated Tin Dredging (not to be confused with Renong Tin Dredging Co.), Katu Tin Dredging, and Burma-Malay Tin.

Siamese Tin is carrying out a survey of the affairs of the three companies concerned and a further statement will be issued in due course.

THE STRAITS TRADING CO., LTD.

At the Annual General Meeting of The Straits Trading Co. Ltd., held in Singapore on May 11, 1955, the Chairman, **Sir Ewen Fergusson,** who presided, said :—

Before I proceed with the normal business of the meeting I must refer to the sudden death of Sir John Bagnall in Johannesburg on September 29, 1954. Sir John joined the Company in 1912, and became Chairman and Managing Director in 1923. It was his intention to retire early in 1942, but the war in the Far East intervened, and it was not until 1947 that he finally left Malaya.

I think it is true to say that few persons have given such devoted service to a company. All through his working years with the Company he worked indefatigably in its interests and even after his retirement his experience and services and, when sought, his advice, were freely placed at our disposal.

My own sense of personal loss is deep, and I know that my colleagues in the Company also felt when he died that an upright and loyal friend had gone. Under a brusque manner he had a kindly heart, and many will miss his good deeds. Some of those present will remember him as will many more who receive a printed account of these proceedings, and I am sure you will wish us to record at this first meeting since his death our deep sorrow at his unexpected and untimely end.

The Report and Accounts for the year ended December 31, 1954, having been in your hands for the prescribed time I shall with your permission take them as read.

In a general discourse on Tin, there is not very much that can be said which has not been said many times before. Production continues at the rate of some 25,000 tons a year ahead of consumption. The Texas Smelter and the American stockpiling policy are still with us and the ratification of the International Tin Agreement is not completed. Transferable sterling still operates to our disadvantage and we still suffer some disappointment when we learn of ore from Siam being transshipped at Malayan ports for South American and United States destinations because of exchange factors. The support which is now being given by the Bank of England to transferable sterling may be a step towards a single rate for sterling and free convertibility. While this is to be desired as soon as possible it will be generally accepted that premature convertibility could be worse for the sterling area in the long run.

STOCKPILING AND THE TIN AGREEMENT

In regard to the International Tin Agreement, to make it effective two more consumer ratifications are required with total votes of not less than 77 between them. The adherence of the Netherlands and Spain would appear to be a foregone conclusion, but the total votes of these two are insufficient to provide the 77 required. Ratification by France would make the Agreement certain on the consumers' side. Amongst producers Indonesia and Thailand are not yet finally committed. The ratification by Indonesia with its 213 votes is essential so that the 900 votes required on the producers' side will be obtained.

In Thailand ratification appears to be closely linked with the payment of the contribution to the Buffer Stock. It is understood that certain proposals have been made in regard to advancing the money required against repayment from tin ore shipments, but this appears to be suggested only so far as the small producers are concerned; the large producers being expected to make their own contributions. Had the Siamese Government been able to arrange the initial financing of their stock with the U.K. Government in the same way as the Federation Government this would undoubtedly have simplified matters for all concerned. It is understood that the Thai Authorities are giving close consideration to the problem and it is expected that a decision will be reached in the near future.

While it is perhaps not absolutely certain that the Texas Smelter will continue to operate, its continuance until at least June, 1956, is confidently expected. The effect of continuing the smelter is that more production will be isolated from the market and thus there will be a stabilizing influence on the tin metal price, providing a further breathing space before the Buffer Stock would need to operate. By continuing to isolate supplies the United States is building up a very substantial strategic stockpile for the future and at the same time helping the producers of the world to maintain their present scale of operations. In South-East Asia this is of especial value in view of the dependence of much of the area on the proceeds of tin mining.

So far as the Malayan Smelters are concerned there was a welcome small increase in the output from the Federation of Malaya and also an increase in the imports from Siam during a part of the year. This latter fell off coincident with the resumption of operations by the buying organization of the

United States Government, and imports from Siam will continue to fluctuate so long as that United States policy continues. In general, if business activity throughout the world continues at the present high levels, I expect 1955 to be a year for Tin which will prove to be much a repetition of 1954.

Turning to the Accounts, it will be noticed that the earnings are slightly up on last year. The increased supplies which reached us for treatment have helped towards this in spite of a reduction in the dividends which were received from tin mining companies.

In the Balance Sheet Issued Capital and General Reserve remain unchanged, while the Investment Reserve reflects the appropriation which was sanctioned last year, and now stands at $2,500,000 at which figure we propose to leave it in the meantime.

War Damage Compensation is increased by the further payments which have been made in final settlement of the War Risk Insurance claim and also interim dividends which were received on such items as had been finally agreed with the War Damage Commission. The main outstanding item concerns some of the damage sustained by our smelting plants, but we are fully confident that this matter will be settled in the near future.

Sundry Creditors and Credit Balances are higher than last year. Apart from various suspense items they reflect the value of tin metal lying at our Works which has been paid for but not shipped, and amounts owing for tin ore which were not settled at the end of the year.

The Bank Overdraft is down on last year, but so also is the value of tin and tin ore in stock and in transit at the Works.

BUTTERWORTH PLANT READY IN 2-3 MONTHS

On the Assets side, Works, Land, Buildings and Furniture show a large increase and this is almost entirely due to the construction work on the new plant being installed at Butterworth. In accordance with our normal prudent practice of keeping the values of smelting furnaces and ancillary plant conservatively valued, we are recommending that the sum of $500,000 be taken from the current profits for this purpose.

Butterworth is now nearing completion and with the arrival of certain plant from the United Kingdom, of which delivery has unexpectedly been delayed, it is now hoped that trials will commence in two or three months. It has been normal for the Company to operate in both places, the Works at Butterworth being geographically better situated for supplies from the North of Malaya and Siam. Pulau Brani is also somewhat out-of-date, and while it has given us very efficient service, thanks to our technical staff, the possibility of some modernization will have to be considered.

Investments in subsidiary companies show little change, but heavy outlays have been incurred by the mining subsidiaries during the year, thus necessitating the advancing of further cash. Kyerwa Syndicate Ltd. in East Africa has now become a wholly-owned subsidiary by the purchase of the minority shareholdings and there has been considerable expenditure in exploration and development.

Sundry Investments show an increase, which is explained by the taking up of shares in certain companies which increased their capital during the year.

Tin and Tin Ore in Stock and in Transit calls for no comment. It is safely and conservatively valued after all allowance has been made for smelting, treatment and other contingencies.

Fuel and Stores Stocks show a considerable reduction which is mainly due to issues for the reconstruction work at Butterworth and now reflected in the cost of the Fixed Assets.

While Sundry Debtors and Debit Balances show an increase, the item is normal and calls for no special comment.

SUBSIDIARY INTERESTS

In regard to the subsidiary interests of the Company, the British Tin Smelting Co. Ltd. continued to operate successfully, and their latest reports again indicate useful profits thus justifying the capital outlay of the last few years.

With regard to our mining properties, the small dredge operating in Pahang continues to pay its way, but it will be some time before we feel that the capital investment in this has been returned.

The joint working arrangement which we have with The Renong Tin Dredging Co. Ltd. has proved so far to be a satisfactory one, the dredge having commenced operations in July last year. The ground is proving difficult to treat because of very hard clay but in spite of this the results to date have been reasonably gratifying.

Progress continues at the Laboo Mine and the latest report is that the milling and concentrating plant should commence trials next month. The Mine is in a remote part of South Siam and movement of plant requires a long haul from Butterworth over many miles of poor roads. The Siamese Customs Regulations are also an obstacle at times, but with the willing co-operation of the Siamese Authorities many difficulties have been overcome and the import of plant has been expeditiously and efficiently carried out. We are, however, perturbed at the restrictions which have been placed on the import of foodstuffs and we hope that the Siamese Government will be able to find some formula which will permit reasonable food supplies once again to enter their country, particularly to such isolated places as the Laboo Mine.

I have already mentioned Kyerwa Syndicate. Kyerwa is in a somewhat inaccessible part of Tanganyika and has problems of distance which it is difficult for anyone living in this country to comprehend. Nevertheless, we hope that the investigatory work which is being carried out will enable us to confirm the potential value of this area, which has been referred to in optimistic terms in reports by technical advisers of the Tanganyika Government.

RUBBER ACTIVITIES

Pelam Estate continues to be highly satisfactory. We are well served by the staff there, and it gives me great pleasure to compliment them on the work they have done. In many respects Pelam is a model estate, and recently we have completed the only Chinese School on any estate in Kedah. This has enabled us to recruit more Chinese labour, and already the number of children attending the school has fully justified the outlay. It may be of interest to stockholders and others to learn that adult classes are also being conducted and that the attendance at these is most gratifying.

It is not always good news that reaches us, however. Pelam appears to be in a region of freak storms, and only recently such a storm caused a loss of the equivalent of 80 acres of high yielding rubber. A loss of this magnitude could have been disastrous to a smaller unit and it is not one that we ourselves would like to suffer again.

It is perhaps unusual for the Chairman of this Company to refer to Rubber, but with our stake in the industry we cannot be other than interested in any policy which affects it. The White Paper which was published by the Federation Government may have produced a worthy effort to help the smallholder, but insofar as this Company is concerned it is of little or no value. We have already planted to the limit of our land, and in spite of much effort have not been able to obtain alienation of any land adjoining our present area.

As we understand the payment of $400 is subject to income tax, whether the net figure of $280 per acre spread over a number of years will persuade estates to spend the other $500 or more required to plant an acre of rubber, I do not know. The decision will, I am sure, depend on whether it is considered that the overall long term risk is a reasonable one for private enterprise to undertake, bearing in mind the possible future trend of the natural rubber price. It is my opinion that some are willing to take the risk, but may hesitate until the Federation elections are over and opportunity has been taken to sum up the prospects of stable government in both the Federation and in Singapore.

I think no one need feel other than pride at the progress which has been made in Singapore and the Federation of Malaya in the comparatively short time since the first world war and in spite of a world-wide slump and the years of Japanese occupation. Private enterprise has unlocked the wealth which has provided the institutions, the government and the other amenities—they can only continue to be provided by encouraging enterprise and risk-taking. Let the new Governments provide the security and the encouragement, and progress will not be halted; and in so doing I am sure they will have the co-operation and help of those enterprises whose development and well-being have been integrated with Malaya's for many, many years; in the case of this Company since it was formed in Singapore nearly seventy years ago.

In closing, there is always a final reference which it gives me great pleasure to make, and that is to our Staff, whether in the parent company or its subsidiaries. Without their keenness and hard work we could not continue to progress and I am sure you will again wish me to record our gratitude to them.

The Report and Accounts were adopted.

DE BEERS CONSOLIDATED MINES, LIMITED

(Incorporated in the Union of South Africa)

DEMAND FOR GEM DIAMONDS STILL OUTSTRIPS PRODUCTION

INTENSIVE PROSPECTING IN SOUTH-WEST AFRICA

SIR ERNEST OPPENHEIMER'S STATEMENT

The following is an extract from the statement by the Chairman, **Sir Ernest Oppenheimer, D.C.L.,** which has been circulated with the annual report and accounts for the year ended December 31, 1954.

The consolidated profit and loss account shows that the group profit for the year after providing £7,781,226 for taxation was £17,729,152. The balance attributable to your company as its share of the profits is £15,253,980.

To this amount have been added the unappropriated balance at December 31, 1953, which, after an adjustment of minority interests, was £20,345,325, and £300,000 transferred from the provision for depreciation of Government and local authority securities as being in excess of requirements. These additions resulted in a total available for appropriation applicable to your company of £35,899,305. £2,841,550 has been transferred to reserves and £8,964,851 declared in dividends, leaving an unappropriated balance of £24,092,904 (an increase for the year of £3,899,695). Of this balance, £7,448,092 is in your company's own accounts and £16,644,812 is your company's interest in the unappropriated balances of its subsidiaries.

FINANCIAL STRENGTH

The consolidated balance-sheet shows total assets of £126,327,374. Included in this total is an amount of £15,295,088, being the net excess of cost of investments in subsidiary companies over their nominal value less amounts written off and after adjustment on consolidation. This excess is, however, covered more than two-and-a-half times by capital reserves totalling £39,391,153. Current assets, loans to other companies and investments total £82,746,498 and exceed all liabilities to the public by £64,058,702. In addition, the group held a stock of diamonds valued at £4,064,546 on the basis of cost of production in the case of the mining companies and cost or market value, whichever was the lower, in the case of the Diamond Corporation, and a stock of mining stores and materials valued at £1,591,891.

It will thus be seen that the financial position of the group has been still further strengthened. Moreover, the capital resources of the trading companies, totalling £15m., are additional to the consolidated surplus, and the position is such as to provide not only protection to the diamond trade under all foreseeable contingencies, but the means of continuing to play an important part in the mining and industrial development of the country. For these latter purposes we have established two companies.

Firstly, De Beers Industrial Corporation, Limited, was formed to assist in financing various industrial projects, and its principal asset is its holding of half the issued share capital of African Explosives and Chemical Industries, Limited. The dividend received from that company was at the same rate as that for the previous year, namely 8 per cent., but increased dividends for the current and future years can be expected.

Secondly, De Beers Investment Trust, Limited, was established in order to employ the surplus funds of the Diamond Corporation in furthering the development of African Explosives and Chemical Industries, Limited, and participating in the development of the Far West Rand and Orange Free State goldfields. Its investments are widespread and largely in developing and expanding concerns, most of which have very favourable prospects. The market value of these investments at December 31, 1954, exceeded their cost by £6,769,000.

In addition to these investments, the Trust Company had made loans at satisfactory rates of interest, totalling £11,031,000, a considerable part of which loans carry valuable conversion rights.

As soon as many of the developing mines and enterprises in which the Trust Company is interested become dividend paying in the comparatively near future, it will be assured of stable and expanding revenue, and your company can look forward to substantial income from this source, not in any way derived from the diamond industry.

Through substantial holdings in the two companies whose activities I have reviewed, the Group has very valuable investments in undertakings not in any way connected with the diamond industry. The value of these investments, based on market price in the case of quoted securities, and the book value of others, plus loans to concerns similarly unconnected with the diamond industry, and the Group cash assets less liabilities totalled £70,709,770.

PROSPECTS FOR 1955

Our gem and industrial sales organizations sold during the first three months of this year :—

Gem	£15,231,054
Industrial	£6,936,763
Total	£22,167,817

The demand for gem diamonds is substantially greater than the production from all sources. Fortunately, intensive prospecting operations in South-West Africa have, during the last few years, increased the proved diamond reserves very considerably. In step with these results, the Consolidated Company of South-West Africa made the required additions to its treatment plants and is now able to increase its monthly output (working average grade of the deposits) from 57,000 carats to £70,000 carats per month. This latter figure should be attained by the end of the year.

Important developments have also taken place in Tanganyika. Williamson Diamonds Limited are just completing the erection of a most modern large-scale treatment plant, and we can therefore also expect a larger output from this territory.

These two enlarged productions will prove a welcome addition to the gem trade. All other producers are working to capacity.

The immediate outlook for the industrial section of the diamond trade is equally promising. Due to very large stockpiling purchases by the United States authorities, the demand is at present exceptionally strong, and during this year we should readily dispose of all current production. But the stockpiling purchases cannot continue indefinitely. Whenever these purchases cease, we will be faced with an over-production, so that in this case—unlike the gem trade—it is not a question of finding additional supplies, but additional outlets. This problem is having our most careful and continued attention.

All in all, indications point to 1955 being a prosperous year in the diamond trade.

Copies of the directors' report and accounts and of the Chairman's statement may be obtained from the London Transfer Office of the Company, 11 Old Jewry, E.C.2.

THE BRITISH PETROLEUM COMPANY

INCREASED CRUDE OIL SUPPLIES AND REFINING SALES TOTAL AT RECORD LEVEL

LORD STRATHALMOND'S STATEMENT

The 46th annual general meeting of The British Petroleum Company Limited will be held on June 9 in London.

The following is an extract from the circulated statement of the Chairman, **The Rt. Hon. Lord Strathalmond, C.B.E., LL.D.:**

In accordance with the resolutions approved at the Extraordinary General Meeting of December 16, 1954, this is your Company's first Annual Report and Accounts to appear under its new name, The British Petroleum Company Limited.

The Consolidated trading profit and other income for 1954 before providing for Depreciation was £75,348,941 compared with £63,883,828 for 1953. From this figure provision has been made of £30,406,091 for Depreciation, the corresponding figure for 1953 being £20,056,243. After providing for Debenture Interest and £19,592,977 for taxation on profits, the amount available for reserves and dividends is £23,962,764 compared with £24,382,850 for 1953.

Your Directors have placed £5,550,000 to General Reserve, which now stands at £36,000,000, and have recommended a final dividend on the Ordinary Stock of 14 per cent., making a total for the year of 15 per cent. on the capital as increased by the capitalization last December of part of the General Reserve.

Total Capital Expenditure during 1954 was approximately £55,000,000 including the following main items:—Refineries £32,500,000; Tankers £9,000,000; Oil Exploration Interests £4,500,000; Marketing Interests £8,000,000.

PRODUCTION

Crude oil production in Kuwait, Iraq and Qatar was again increased in 1954, when our offtake from those sources totalled some 36,000,000 tons, compared with 32,000,000 in 1953. As from October 29, when the agreement between Iran and the Consortium companies took effect, to the end of 1954 our liftings from Iran were 440,000 tons, about one-third in crude oil and the balance in refined products. Our current liftings from Iran are at the rate of 5,000,000 tons per annum, including 2,000,000 tons of crude oil.

In the United Kingdom our crude oil production was 59,000 tons compared with 54,600 tons in 1953.

Exploration operations were increased during the year in the various overseas territories in which we have interests.

REFINING

Our total refinery throughput in 1954, at 24,000,000 tons was 4,000,000 tons greater than in 1953. Principal contributors to this increase were the new Aden refinery, which came into operation in July, 1954, and the Kent and Hamburg refineries. On February 1 last our new Kwinana Refinery in Western Australia was commissioned; that addition, together with the development of our other refining installations and interests, should achieve the figure of 30,000,000 tons which I mentioned last year as our expected total refining capacity by the end of this year. Concurrent with this expansion in refining capacity, the installation of new plant is in progress at many refineries in a constant effort to attain the highest quality of products in the most efficient manner.

In Great Britain, throughput in 1954 of our four refineries totalled 10,563,000 tons against 9,327,000 tons in 1953.

The statement then referred to the refinery operations in Belgium, France, Germany, Italy, Israel, Kuwait and Aden, and continued: Such good progress was made during 1954 with the construction of the new 3,000,000 tons capacity refinery at Kwinana (Western Australia) that it came into operation on February 1, 1955, several months ahead of schedule, a most praiseworthy achievement by all concerned.

At Abadan refinery, which started operation in accordance with the agreement between Iran and the Consortium companies on October 29, 1954, throughput was 898,000 tons by the end of the year; your Company's offtake was 280,000 tons. Abadan refinery throughput is now at the rate of 7,500,000 tons per annum.

SEA TRANSPORT

The British Tanker Company's fleet now consists of 148 ships totalling 2,063,000 deadweight tons, as against 142 ships of 1,917,000 deadweight tons at this time last year.

DISTRIBUTION AND SALES

World demand for petroleum products, excluding Russia and her satellites, increased by about 5 per cent. in 1954, following the same trend as in the previous two years. This world figure would have been greater but for the slight business recession in the U.S.A. where the increase was limited to 2 per cent. In the Eastern Hemisphere, wherein lies the bulk of your Company's interests, the increase in oil consumption in a year of generally high business activity was 11 per cent. above the 1953 level, comparing with increases of about 8 per cent. in each of the two preceding years. This gain in Eastern Hemisphere trade, representing some 18 million tons, was matched by increased output of Middle East crude oil—particularly in Kuwait and Saudi Arabia.

The growth in refinery capacity in the Eastern Hemisphere last year of 24 million tons was more than adequate to cover the increased demand. About half of this increased capacity, including our new refinery at Aden, was situated East of Suez. With the commissioning of Kwinana refinery in Western Australia we have now reached the position where the output of our new refineries East of Suez together with our share of products from Iran has eliminated the long back haul from European refineries that was such an abnormal feature of our operations over the previous two years.

The Group's sales of crude oil and refined products in 1954 were at a record level of 41 million tons, about one million tons greater than the previous peak figure achieved in 1950, the last year in which we were fully operating in Iran. Sales in 1954 represented an increase of nearly 4 million tons, or 10½ per cent. over 1953. Of this increase refined products accounted for just under 3 million tons and were 11½ per cent. greater than in 1953—a rate of increase slightly higher than that for the Eastern Hemisphere as a whole. We were able to cover a greater proportion of the increased sales of refined products from our own sources so that the amount of refinery capacity hired declined to 1¾ million tons in 1954 and purchases to 6 million tons.

The level of crude oil prices during 1954 remained in general unchanged. The trend of refined product prices left the overall return on the content of the barrel of crude oil relatively unchanged from that prevailing at the end of 1953.

Our sales of aviation spirit have continued to expand, and the BP Aviation Service has again been entrusted with the task of providing in whole or part for the fuelling of many of the major International Air Lines, the Armed Services and other flight operations in the countries covered by its growing network.

The BP International Oil Bunkering Service continues to provide an important part of world bunker supplies.

As indicated last year, by mid 1954 BP Energol lubricants were available in all countries where we have general marketing interests. Sales of our branded lubricants show a very satisfactory increase compared with 1953 both in this country and overseas and our largely increased production is all being disposed of through our own marketing outlets.

In the United Kingdom, the continued upward trend in industrial activity was reflected in a strong demand for petroleum products in 1954. The market for premier grade motor spirit continued to expand, and during the year the inclusion of the additive BP 08 in BP Super ensured that it was fully competitive with the premier grades of other companies. Sales of fuel oil showed a marked expansion and we are being called upon to contribute in an increasing degree to the country's industrial energy requirements.

I drew attention last year to the mounting evidence of difficulty in keeping the balance product by product between market demand and what the Refiner can extract from the barrel of crude oil in Eastern Hemisphere operations. Events since then have served to underline the problem. The demand for heavy oils, particularly residual fuel oil, has continued to increase rapidly. High levels of industrial activity and the inability of other fuels to cope with the increasing requirements, has led in Europe, for example, to a rise of about 20 per cent. in fuel oil consumption. Demand is likely to remain high since oil will probably be called upon to satisfy increasing fuel requirements—in this country the Electricity Authorities, Gas Boards, and Railways are all planning to use substantial quantities of fuel or diesel oil. The consumption of motor spirit on the other hand is generally restricted by heavy taxation and sales in the Eastern Hemisphere showed an increase of only about 9 per cent. compared with 13 per cent. for black oils. This artificial restriction of the demand for the lighter fractions, which include motor spirit, continues to present us—and the oil industry in general—with a difficult situation.

RESEARCH

The work of our Research and Development establishments continues to maintain and enhance the Company's reputation for products of the highest quality and performance, as well as to keep the BP Group abreast of its competitors in the continually evolving techniques of finding, producing, transporting and refining crude oils.

AFRICAN AND EUROPEAN INVESTMENT COMPANY LIMITED

(Incorporated in the Union of South Africa)

COMPANY'S FIFTIETH ANNIVERSARY

MR. R. B. HAGART'S REVIEW

The following are extracts from the Statement by the Chairman, **Mr. R. B. Hagart,** which have been circulated with the Annual Report and Accounts for 1954 :—

The profit earned during the year ended December 31, 1954, was £902,300, as compared with £855,194 in 1953 and £929,344 in 1952.

Provision for taxation amounted to only £9,111, most of which was due to an under-estimation in respect of the previous year. This modest amount was the result of the sale during the year of entire holdings in certain shares at well below the tax cost.

Directors' additional remuneration absorbed £5,000 and a sum of £724 spent on prospecting was written off.

After making provision for a loss of £7,465 incurred by a subsidiary company and transferring £250,000 to general reserve, the dividend distributions were maintained at 6 per cent. on the preference capital and 2s. 6d. per stock unit on the ordinary capital, absorbing £627,500. Unappropriated profit carried forward was £225,454, as against £222,954 brought forward from the previous year.

During the year 780,000 new ordinary shares were issued to stockholders at 45s. per share and Anglo American Corporation of South Africa, Limited, subscribed for 800,000 new ordinary shares at 50s. per share. The proceeds of these issues enabled the Company to discharge its liabilities of £3,700,000 arising out of the note issue and loan.

THE ORANGE FREE STATE GOLD MINING INDUSTRY

Considerable progress has been made in the Orange Free State goldfield during the period under review.

The Harmony, President Brand, President Steyn and Virginia mines commenced gold production at various times during the course of the year, bringing the number of producing mines to eight; and these mines together achieved an aggregate gold output more than double that of the previous year, the total tonnage milled amounting to 4,434,000 tons, yielding 1,095,540 ounces of gold for a value of £13,717,663. The comparative figures for 1953 were 2,124,000 tons milled, yielding 431,261 ounces of gold for a value of £5,358,605.

Significant as this achievement has been, it still represents only the beginnings of the contribution the new goldfield will make to the national economy.

Moreover, the country's gold revenue and its resources of foreign exchange will be further supplemented by a growing output of uranium from the Orange Free State mines.

The Orange Free State mines in which we are particularly interested are now at the stage where schemes are being carried out that will enable them to attain their full economic production.

THE SOUTH AFRICAN COAL INDUSTRY IN 1954

Any review of the state of the coal industry in South Africa during 1954 must be made against the background of difficult transport conditions

The result of the transport crisis is that the South African collieries are generally working well below full productive capacity, the export trade has diminished to negligible proportions and non-priority inland consumers are subjected to various degrees of severe rationing.

In these circumstances expansion expectations must be viewed with caution, even though it is clear that the fuel requirements of heavy industry, the power stations and other consumers are mounting.

The South African Railways Administration is fully aware of the problems confronting it and there is evidence of its realistic planning to endeavour to meet future traffic demands.

On the technological side of the industry, limited efforts are being made by the Fuel Research Institute of South Africa to discover and improve methods of processing coal, with a view to achieving maximum thermal efficiency with as small an amount of available fuel as possible. The mines in which your Company is interested can justly claim to have done much good work in this connection, and modern washing plants are a feature on many of our collieries whose raw coal quality requires this type of treatment.

During the year under review the total sales of coal mined in the Union amounted to 31,301,578 tons, as compared with 30,569,655 tons in 1953. The collieries in which your Company is interested sold 13,451,662 tons, representing 44 per cent. of the total.

GENERAL

Your Company is now at an interesting stage in its history.

Eighteen years ago—in March, 1937—Block 7 in the then unknown Orange Free State goldfield was acquired, and since then, first in exploratory expenditure and, subsequently, in providing its share of capital requirements, the Company has pursued this investment, in addition to following and expanding its direct and indirect coal interests.

This development programme naturally called for the provision of considerable sums of money, and while not inconsiderable profits have been made from time to time in share-dealing, the main reward in the form of an enhanced dividend income has still to be gained. That reward now appears to be not far distant and over the next four or five years it is hoped that revenue from these sources will show a steady and pleasing improvement.

Copies of the Report and Accounts, incorporating the full Statement by the Chairman, are obtainable from the London Office of the Company, 11 *Old Jewry, E.C.2.*

CONSOLIDATED MURCHISON (TRANSVAAL) GOLDFIELDS

MR. S. G. MENELL ON YEAR'S OPERATIONS

The twenty-first Ordinary General Meeting of Consolidated Murchison (Transvaal) Goldfields and Development Co., Ltd., will be held on June 20 at Anglovaal House, 71 Fox Street, Johannesburg.

The following is the statement by the chairman, **Mr. S. G. Menell,** which has been circulated with the report and accounts for the year ended December 31, 1954 :—

CAPITAL AND PROPERTY

There has been no change in the Company's Capital and Property other than the acquisition of an additional 18 claims. During the year Capital Expenditure amounted to £9,739 which was expended on additions to the Power Station and the Manager's House, equipping the Gravelotte Shaft and the construction of New Recreation Club Buildings.

INCOME AND EXPENDITURE ACCOUNT

The net profit for the year was £737,345, after taking into account a loss on the sale of surplus stores of £2,191. The estimated taxation was £215,000 leaving a surplus of £522,345. This surplus, together with the balance on Appropriation Account brought forward from the previous year, amounted to £988,850.

Dividends Nos. 20 and 21 aggregating 230%, absorbed £478,400, and £15,357 was appropriated for Capital Expenditure, leaving a balance on Appropriation Account of £495,093 which was carried forward to the current financial year.

OPERATIONS

A comparison of operations in the years 1953 and 1954, shows that there was an increase in the tonnage milled from 71,300 tons to 85,188 tons with a corresponding increase in expenditure from £274,718 to £281,465 but resulting in the costs per ton decreasing from 77.06s. to 66.08s. During the year the demand for antimony improved and your Company's activities were directed chiefly to the extraction of this product. The total revenue from all sources increased from £564,781 to £1,021,001, and the gross profit increased from £290,063 in 1953 to £739,536 in 1954.

Your Company has concluded no long-term contracts for antimony, but the demand has been well maintained up to the present date. Stocks of ore and concentrates are being kept at the level necessary to ensure that orders can readily be fulfilled, and, in order to be in a position to meet any additional future demands, development work designed to open up the lower levels of the Gravelotte Section and to provide additional ore reserves, was commenced.

This concludes my review of the year's operations and I desire to place on record your Board's appreciation of the services rendered by the Secretaries, Anglo-Transvaal Consolidated Investment Company, Limited, the Technical Advisers, Johannesburg Consolidated Investment Company, Limited, the Mine Manager, Mr. C. J. Shaw, and the staffs both at the mine and at the head and London offices of the Company.

Metal and Mineral Trades

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